



PROTON-ELECTROTEX
Power semiconductor devices

P r o d u c t c a t a l o g

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Phase Control Thyristors Overview

| | | | | | | | | |
|---|----------|----------------------|----------------------------------|--|------------------------|-------------------------------------|------------------------|------------------------|
| 6500 | | | T643-320 T743-320 | T853-500 T653-800 T953-800 T253-500 | T163-1000 T363-1000 | T473-1250 T673-1250 | T183-1600 T383-1600 | T193-2000 T393-2000 |
| 5200 | | | | | T263-1000 | | T283-2000 | T193-2500 T393-2500 |
| 4400 | | T933-160 T933-250 | T243-400 T343-400 | T553-800 | T163-1250 | T273-1250 T373-1250 | T183-2500 | T193-3200 T393-3200 |
| 3600 | T123-160 | T433-250 | T443-500 | T353-800 T453-800 | | T173-1600 T373-1600 | | T193-3600 T393-3600 |
| 2800 | | T133-320 T333-320 | T243-500 T343-630 | T353-1000 | T163-1600 | T173-2000 T373-2000 | T183-3200 | T193-4000 T393-4000 |
| 2400 | | T133-400 T333-400 | T143-400 | T253-800 T253-1390 | | | | |
| 1800 | T123-320 | T233-500 | T243-800 T143-800 T343-800 | T253-1250 T453-1250 T353-1600 | T163-2000 | T173-2500 T373-2500 T273-3200 | T183-4000 | T193-5000 T393-5000 |
| 1000 | T123-400 | T133-500 | | T143-1000 | | T173-3200 T373-3200 | | |
| 800 | T123-500 | T133-630 | T143-1250 | T153-2000 | | | | |
| Blocking voltage [V] ∅ of the element [mm] | 24 | 32 | 40 | 56 | 70 | 80 | 90 | 100 |

Fast Thyristors Overview

| | | | | | | |
|---|---------------------------------------|--|--|--|---|----------------------------|
| 4000 | | | | | | TFI473-1600 • TFI873-1600 |
| 3600 | TFI933-250 | | | | | |
| 3400 | | | | | TFI353-800 | |
| 3000 | | | | | TFI353-700 | |
| 2800 | | | | | TFI353-1000 | TFI373-1600 • TFI773-1600 |
| 2500 | | | | | | TFI373-2000 • TFI773-2000 |
| 2400 | TFI233-320 • TFI333-320 TFI233-400 | | | | | |
| 2200 | | | TFI243-400 • TFI443-400 TFI643-400 • TFI243-500 TFI443-500 • TFI643-500 TFI243-630 • TFI443-630 | | TFI253-800 • TFI253-1000 TFI253-1250 | |
| 2000 | | | | | | TFI673-2000 • TFI273-2000 |
| 1500 | TFI333-400 • TFI533-400 | | TFI143-400 • TFI343-400 TFI543-400 • TFI143-500 TFI343-500 • TFI543-500 TFI143-630 • TFI343-630 TFI543-630 | | TFI153-800 • TFI153-1000 TFI153-1250 | |
| 1400 | TFIS123-200 | | | | | TFIS153-800 • TFIS153-1000 |
| 1200 | TFI133-400 • TFI433-400 | | TFIS133-400 | | TFIS343-500 | TFI573-2000 • TFI173-2000 |
| 1100 | | | | | TFIS143-500 | |
| Blocking voltage [V] ∅ of the element [mm] | 32 | | 40 | | 56 | 80 |

Part numbering guide

| TFI | 133 | - | 400 | - | 12 | - | A2 | A4 | - | N |
|-----|-----|---|-----|---|----|---|----|----|---|---|
| 1 | 2 | | 3 | | 4 | | 5 | 6 | | 7 |

1. T — Phase Control / TFI — Fast Thyristor / TFIS — Ultra Fast Thyristor
2. Design version
3. Mean on-state current, A
4. Voltage code
5. Critical rate of rise of off-state voltage
6. Group of turn-off time
7. Ambient conditions: N - normal; T - tropical

Phase Control Thyristors

| Part Number | Ø of the element | V_{DRM}^{RRM} | I_{TAV} | T_C | V_{TM} | I_{TM} | $V_{T(TO)}$ | r_T | t_q | T_{jmax} | R_{thjc} | Package | Recommended Heatsinks |
|---------------------|------------------|-----------------|-----------|-------|----------|----------|-------------|-------|-------|------------|------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [μs] | [°C] | [°C/W] | | |
| up to 800 V | | | | | | | | | | | | | |
| T123-500 | 24 | 100÷800 | 500 | 100 | 1,55 | 1570 | 0,80 | 0,490 | 80 | 150 | 0,0700 | T.A1 | 0123 |
| T133-630 | 32 | 100÷800 | 630 | 116 | 1,45 | 1978 | 0,80 | 0,340 | 125 | 150 | 0,0400 | T.B2 | 0143, 0243, 0343 |
| T143-1250 | 40 | 100÷800 | 1250 | 100 | 1,50 | 3925 | 0,80 | 0,170 | 160 | 150 | 0,0300 | T.C1 | 0143, 0243, 0343 |
| T153-2000 | 56 | 100÷800 | 2000 | 90 | 1,45 | 6280 | 0,80 | 0,120 | 160 | 140 | 0,0180 | T.D1 | 0153, 0253 |
| up to 1000 V | | | | | | | | | | | | | |
| T123-400 | 24 | 800÷1000 | 400 | 110 | 1,65 | 1256 | 0,83 | 0,580 | 125 | 150 | 0,0700 | T.A1 | 0123 |
| T133-500 | 32 | 800÷1000 | 500 | 120 | 1,50 | 1570 | 0,95 | 0,420 | 125 | 150 | 0,0400 | T.B2 | 0143, 0243, 0343 |
| T143-1000 | 40 | 800÷1000 | 1000 | 104 | 1,50 | 3140 | 0,85 | 0,270 | 160 | 150 | 0,0300 | T.C1 | 0143, 0243, 0343 |
| T173-3200 | 80 | 800÷1000 | 3200 | 104 | 1,50 | 10048 | 0,83 | 0,062 | 250 | 140 | 0,0085 | T.F2 | 0173 |
| T373-3200 | 80 | 800÷1000 | 3200 | 98 | 1,50 | 10048 | 0,83 | 0,062 | 250 | 140 | 0,0100 | T.F5 | 0173 |
| up to 1800 V | | | | | | | | | | | | | |
| T123-320 | 24 | 1000÷1800 | 320 | 89 | 1,75 | 1005 | 0,90 | 0,850 | 125 | 125 | 0,0700 | T.A1 | 0123 |
| T233-500 | 32 | 1000÷1600 | 500 | 93 | 1,70 | 1570 | 0,95 | 0,510 | 125 | 125 | 0,0400 | T.B2 | 0143, 0243, 0343 |
| T243-800 | 40 | 1000÷1800 | 800 | 85 | 1,70 | 2512 | 1,00 | 0,330 | 160 | 125 | 0,0300 | T.C1 | 0143, 0243, 0343 |
| T143-800 | 40 | 1000÷1800 | 800 | 82 | 1,70 | 2512 | 1,00 | 0,330 | 160 | 125 | 0,0320 | T.C2 | 0143, 0243, 0343 |
| T343-800 | 40 | 1000÷1800 | 800 | 89 | 1,50 | 1570 | 0,85 | 0,320 | 200 | 130 | 0,0350 | T.C3 | 0143, 0243, 0343 |
| T453-1250 | 56 | 1000÷1800 | 1250 | 90 | 1,80 | 3925 | 0,95 | 0,200 | 160 | 125 | 0,0180 | T.D5 | 0153, 0253 |
| T253-1250 | 56 | 1000÷1800 | 1250 | 90 | 1,60 | 3925 | 0,95 | 0,200 | 200 | 125 | 0,0180 | T.D5 | 0153, 0253 |
| T353-1600 | 56 | 1000÷1800 | 1600 | 83 | 1,60 | 5024 | 0,80 | 0,165 | 160 | 125 | 0,0180 | T.D5 | 0153, 0253 |
| T163-2000 | 70 | 1000÷1800 | 2000 | 96 | 1,45 | 5000 | 0,85 | 0,120 | 250 | 125 | 0,0100 | T.E3 | 0173 |
| T173-2500 | 80 | 1000÷1800 | 2500 | 94 | 1,55 | 7850 | 0,88 | 0,092 | 250 | 125 | 0,0085 | T.F2 | 0173 |
| T373-2500 | 80 | 1000÷1800 | 2500 | 89 | 1,55 | 7850 | 0,88 | 0,092 | 250 | 125 | 0,0100 | T.F5 | 0173 |
| T273-3200 | 80 | 1600÷1800 | 3200 | 85 | 1,50 | 7850 | 0,81 | 0,084 | 250 | 125 | 0,0085 | T.F2 | 0173 |
| T183-4000 | 90 | 1000÷1800 | 4000 | 82 | 1,35 | 6300 | 0,85 | 0,080 | 320 | 125 | 0,0065 | T.H1 | 0173 |
| T193-5000 | 100 | 1000÷1800 | 5000 | 84 | 1,30 | 6300 | 0,90 | 0,060 | 400 | 125 | 0,0050 | T.G5 | 0193 |
| T393-5000 | 100 | 1000÷1800 | 5000 | 78 | 1,30 | 6300 | 0,90 | 0,060 | 400 | 125 | 0,0057 | T.G6 | 0193 |
| up to 2400 V | | | | | | | | | | | | | |
| T133-400 | 32 | 2000÷2400 | 400 | 87 | 2,10 | 1256 | 1,10 | 1,250 | 200 | 125 | 0,0400 | T.B3 | 0143, 0243, 0343 |
| T333-400 | 32 | 2000÷2400 | 400 | 87 | 2,10 | 1256 | 1,10 | 1,250 | 200 | 125 | 0,0400 | T.B2 | 0143, 0243, 0343 |
| T143-400 | 40 | 2000÷2400 | 400 | 97 | 2,15 | 1256 | 1,20 | 0,950 | 250 | 125 | 0,0320 | T.C2 | 0143, 0243, 0343 |
| T253-800 | 56 | 2000÷2400 | 800 | 95 | 2,10 | 2512 | 1,20 | 0,440 | 320 | 125 | 0,0180 | T.D5 | 0153, 0253 |
| T253-1390 | 56 | 2000÷2400 | 1390 | 85 | 1,50 | 3140 | 0,85 | 0,220 | 160 | 125 | 0,0180 | T.D5 | 0153, 0253 |
| up to 2800 V | | | | | | | | | | | | | |
| T133-320 | 32 | 2000÷2800 | 320 | 95 | 2,10 | 1005 | 1,15 | 1,500 | 200 | 125 | 0,0400 | T.B3 | 0143, 0243, 0343 |
| T333-320 | 32 | 2000÷2800 | 320 | 95 | 2,10 | 1005 | 1,15 | 1,500 | 200 | 125 | 0,0400 | T.B2 | 0143, 0243, 0343 |
| T243-500 | 40 | 2000÷2800 | 500 | 94 | 2,00 | 1570 | 1,04 | 0,735 | 250 | 125 | 0,0320 | T.C2 | 0143, 0243, 0343 |
| T343-630 | 40 | 2000÷2800 | 630 | 91 | 1,90 | 1978 | 1,15 | 0,400 | 250 | 125 | 0,0300 | T.C1 | 0143, 0243, 0343 |
| T353-1000 | 56 | 2000÷2800 | 1000 | 88 | 2,00 | 3140 | 1,10 | 0,380 | 320 | 125 | 0,0180 | T.D5 | 0153, 0253 |
| T163-1600 | 70 | 2000÷2800 | 1600 | 99 | 1,75 | 5000 | 0,85 | 0,200 | 400 | 125 | 0,0100 | T.E3 | 0173 |
| T173-2000 | 80 | 2000÷2800 | 2000 | 99 | 1,60 | 6280 | 0,90 | 0,130 | 500 | 125 | 0,0085 | T.F2 | 0173 |
| T373-2000 | 80 | 2000÷2800 | 2000 | 94 | 1,60 | 6280 | 0,90 | 0,130 | 500 | 125 | 0,0100 | T.F5 | 0173 |
| T183-3200 | 90 | 2000÷2800 | 3200 | 87 | 1,55 | 6300 | 0,90 | 0,115 | 400 | 125 | 0,0065 | T.H1 | 0173 |
| T193-4000 | 100 | 2000÷2800 | 4000 | 94 | 1,45 | 6300 | 0,85 | 0,070 | 500 | 125 | 0,0050 | T.G5 | 0193 |
| T393-4000 | 100 | 2000÷2800 | 4000 | 90 | 1,45 | 6300 | 0,85 | 0,070 | 500 | 125 | 0,0057 | T.G6 | 0193 |

Phase Control Thyristors

| Part Number | Ø of the element | V_{DRM} V_{RRM} | I_{TAV} | T_C | V_{TM} | I_{TM} | $V_{T(TO)}$ | r_T | t_q | T_{jmax} | R_{thjc} | Package | Recommended Heatsinks |
|---------------------|------------------|------------------------|-----------|-------|----------|----------|-------------|-------|-------|------------|------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [μs] | [°C] | [°C/W] | | |
| up to 3600 V | | | | | | | | | | | | | |
| T123-160 | 24 | 3000÷3600 | 160 | 97 | 2,30 | 503 | 0,95 | 3,000 | 200 | 125 | 0,0800 | T.A1 | 0123 |
| T433-250 | 32 | 3000÷3600 | 250 | 100 | 2,50 | 785 | 1,20 | 2,100 | 250 | 125 | 0,0400 | T.B3 | 0143, 0243, 0343 |
| T443-500 | 40 | 3000÷3600 | 500 | 91 | 2,10 | 785 | 1,15 | 0,800 | 320 | 125 | 0,0320 | T.C2 | 0143, 0243, 0343 |
| T353-800 | 56 | 3000÷3600 | 800 | 95 | 2,20 | 2512 | 1,30 | 0,400 | 400 | 125 | 0,0180 | T.D5 | 0153, 0253 |
| T453-800 | 56 | 3000÷3600 | 800 | 91 | 2,30 | 2512 | 1,45 | 0,450 | 400 | 125 | 0,0180 | T.D5 | 0153, 0253 |
| T173-1600 | 80 | 3000÷3600 | 1600 | 97 | 2,05 | 5024 | 1,15 | 0,220 | 500 | 125 | 0,0085 | T.F2 | 0173 |
| T373-1600 | 80 | 3000÷3600 | 1600 | 92 | 2,05 | 5024 | 1,15 | 0,220 | 500 | 125 | 0,0100 | T.F5 | 0173 |
| T193-3600 | 100 | 3000÷3600 | 3600 | 91 | 1,70 | 6300 | 0,90 | 0,110 | 630 | 125 | 0,0050 | T.G5 | 0193 |
| T393-3600 | 100 | 3000÷3600 | 3600 | 86 | 1,70 | 6300 | 0,90 | 0,110 | 630 | 125 | 0,0057 | T.G6 | 0193 |
| up to 4400 V | | | | | | | | | | | | | |
| T933-160 | 34 | 3800÷4400 | 160 | 102 | 3,00 | 502 | 2,20 | 3,500 | 400 | 125 | 0,0400 | T.B3 | 0143, 0243, 0343 |
| T933-250 | 34 | 3800÷4400 | 250 | 98 | 2,70 | 785 | 1,30 | 2,300 | 500 | 125 | 0,0400 | T.B3 | 0143, 0243, 0343 |
| T243-400 | 40 | 3800÷4400 | 400 | 92 | 2,35 | 1256 | 1,30 | 1,250 | 500 | 125 | 0,0320 | T.C2 | 0143, 0243, 0343 |
| T343-400 | 40 | 3800÷4400 | 400 | 89 | 2,35 | 1256 | 1,30 | 1,250 | 500 | 125 | 0,0350 | T.C3 | 0143, 0243, 0343 |
| T553-800 | 56 | 3800÷4400 | 800 | 89 | 2,60 | 2512 | 1,20 | 0,650 | 500 | 125 | 0,0180 | T.D5 | 0153, 0253 |
| T163-1250 | 70 | 3800÷4400 | 1250 | 102 | 2,30 | 5000 | 1,05 | 0,250 | 630 | 125 | 0,0100 | T.E3 | 0173 |
| T273-1250 | 80 | 3800÷4400 | 1250 | 102 | 2,10 | 3925 | 1,20 | 0,300 | 630 | 125 | 0,0085 | T.F2 | 0173 |
| T373-1250 | 80 | 3800÷4400 | 1250 | 98 | 2,10 | 3925 | 1,20 | 0,300 | 630 | 125 | 0,0100 | T.F5 | 0173 |
| T183-2500 | 90 | 3800÷4400 | 2500 | 88 | 2,10 | 6300 | 1,00 | 0,210 | 700 | 125 | 0,0065 | T.H1 | 0193 |
| T193-3200 | 100 | 3800÷4400 | 3200 | 91 | 1,80 | 6300 | 0,95 | 0,150 | 800 | 125 | 0,0050 | T.G5 | 0193 |
| T393-3200 | 100 | 3800÷4400 | 3200 | 86 | 1,80 | 6300 | 0,95 | 0,150 | 800 | 125 | 0,0057 | T.G6 | 0193 |
| up to 5200 V | | | | | | | | | | | | | |
| T263-1000 | 70 | 4600÷5200 | 1000 | 104 | 2,80 | 5000 | 0,90 | 0,500 | 800 | 125 | 0,0100 | T.E3 | 0173 |
| T283-2000 | 90 | 4600÷5200 | 2000 | 93 | 2,50 | 6300 | 1,00 | 0,290 | 800 | 125 | 0,0065 | T.H1 | 0193 |
| T193-2500 | 100 | 4600÷5200 | 2500 | 98 | 2,10 | 6300 | 1,00 | 0,190 | 800 | 125 | 0,0050 | T.G5 | 0193 |
| T393-2500 | 100 | 4600÷5200 | 2500 | 94 | 2,10 | 6300 | 1,00 | 0,190 | 800 | 125 | 0,0057 | T.G6 | 0193 |
| up to 6500 V | | | | | | | | | | | | | |
| T643-320 | 40 | 4600÷6500 | 320 | 92 | 2,60 | 785 | 1,00 | 2,500 | 630 | 125 | 0,0350 | T.C6 | 0143, 0243, 0343 |
| T743-320 | 40 | 4600÷6500 | 320 | 82 | 2,60 | 785 | 1,00 | 2,500 | 630 | 125 | 0,0450 | T.C5 | 0143, 0243, 0343 |
| T253-500 | 56 | 4600÷6500 | 500 | 102 | 2,50 | 1570 | 1,10 | 1,200 | 630 | 125 | 0,0180 | T.D5 | 0153, 0253 |
| T853-500 | 56 | 4600÷6500 | 500 | 99 | 2,50 | 1570 | 1,05 | 1,200 | 630 | 125 | 0,0200 | T.D4 | 0153, 0253 |
| T653-800 | 56 | 4600÷6500 | 800 | 79 | 2,40 | 1500 | 1,05 | 1,100 | 630 | 125 | 0,0180 | T.D5 | 0153, 0253 |
| T953-800 | 56 | 4600÷6500 | 800 | 73 | 2,40 | 1500 | 1,05 | 1,100 | 630 | 125 | 0,0200 | T.D4 | 0153, 0253 |
| T163-1000 | 70 | 5400÷6500 | 1000 | 101 | 3,15 | 5000 | 1,00 | 0,560 | 800 | 125 | 0,0100 | T.E3 | 0173 |
| T363-1000 | 70 | 5400÷6500 | 1000 | 98 | 3,15 | 5000 | 1,00 | 0,560 | 800 | 125 | 0,0110 | T.E4 | 0173 |
| T473-1250 | 80 | 4600÷6500 | 1250 | 96 | 2,50 | 3925 | 1,00 | 0,420 | 800 | 125 | 0,0100 | T.F5 | 0173 |
| T673-1250 | 80 | 4600÷6500 | 1250 | 100 | 2,50 | 3925 | 1,00 | 0,420 | 800 | 125 | 0,0085 | T.F2 | 0173 |
| T183-1600 | 90 | 5400÷6500 | 1600 | 102 | 2,70 | 6300 | 1,00 | 0,300 | 800 | 125 | 0,0065 | T.H1 | 0193 |
| T383-1600 | 90 | 5400÷6500 | 1600 | 98 | 2,70 | 6300 | 1,00 | 0,320 | 800 | 125 | 0,0075 | T.H2 | 0193 |
| T193-2000 | 100 | 4600÷6500 | 2000 | 99 | 2,70 | 6300 | 1,10 | 0,320 | 800 | 125 | 0,0050 | T.G5 | 0193 |
| T393-2000 | 100 | 4600÷6500 | 2000 | 95 | 2,70 | 6300 | 1,10 | 0,300 | 800 | 125 | 0,0057 | T.G6 | 0193 |

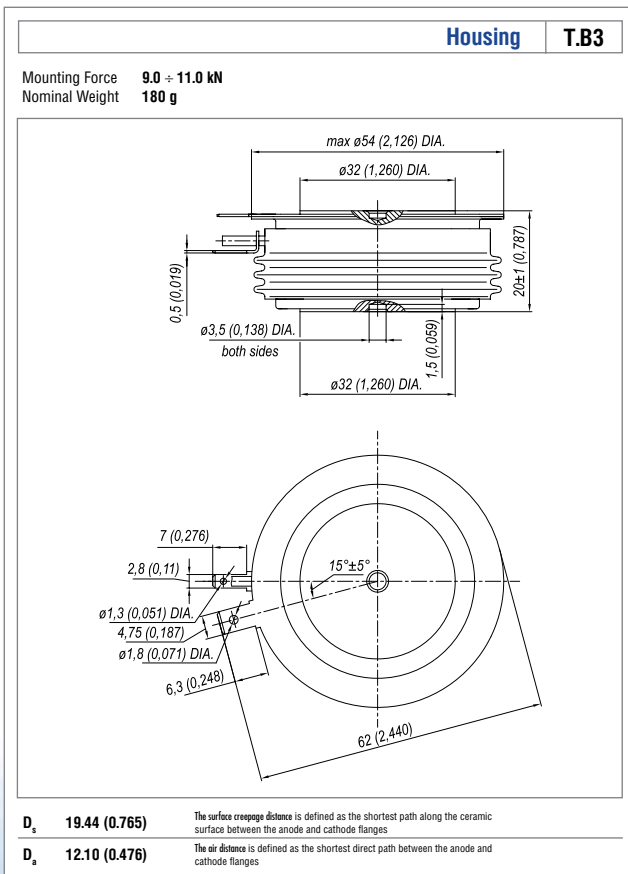
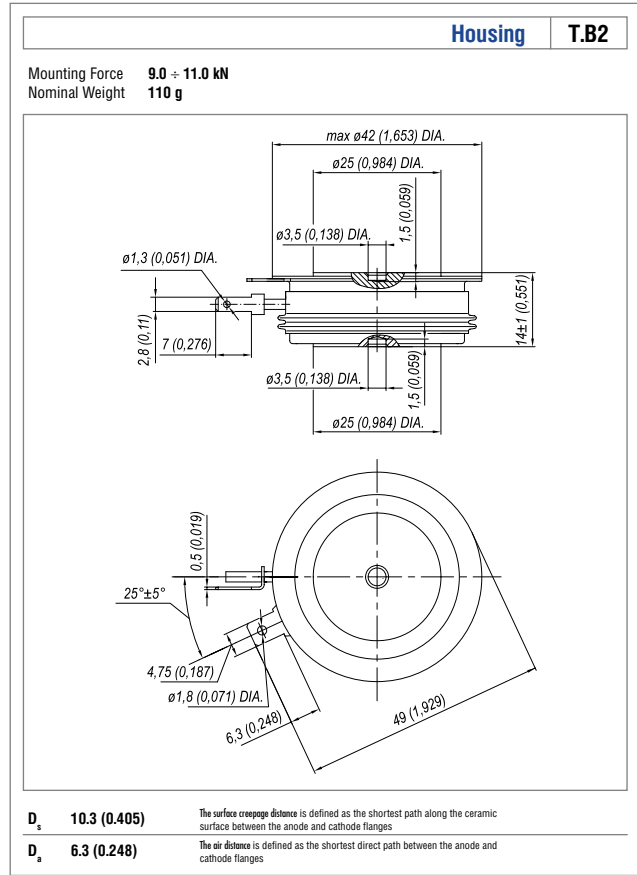
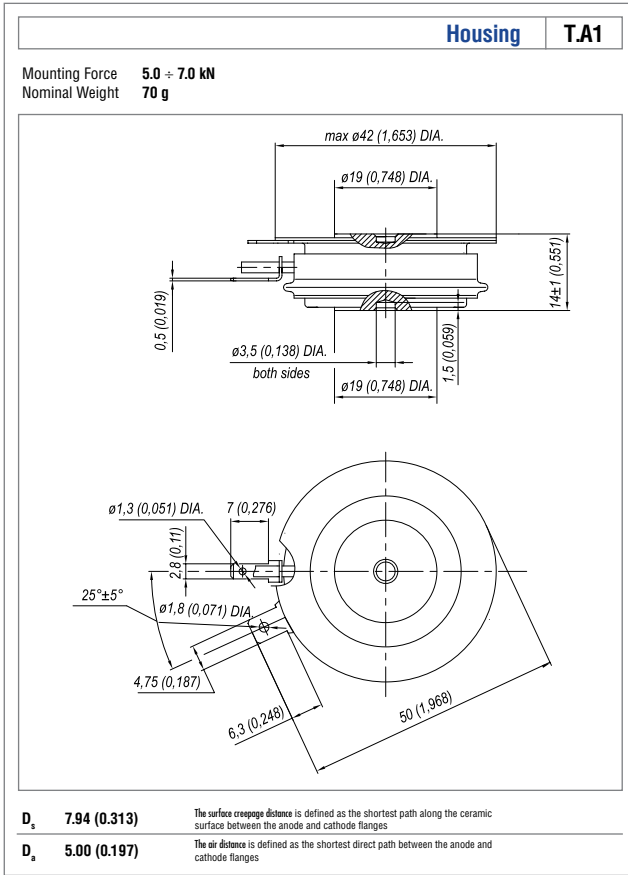
Ultra Fast Thyristors

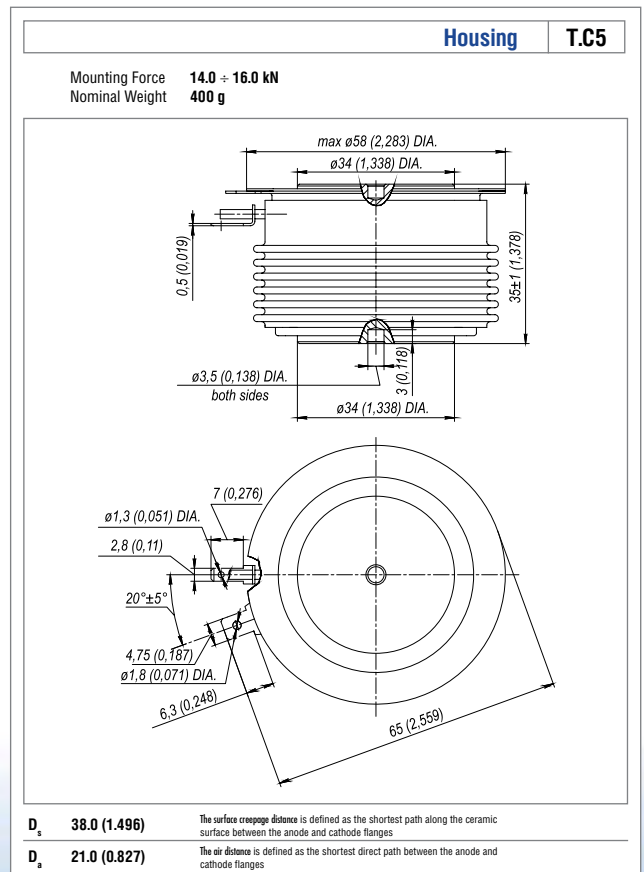
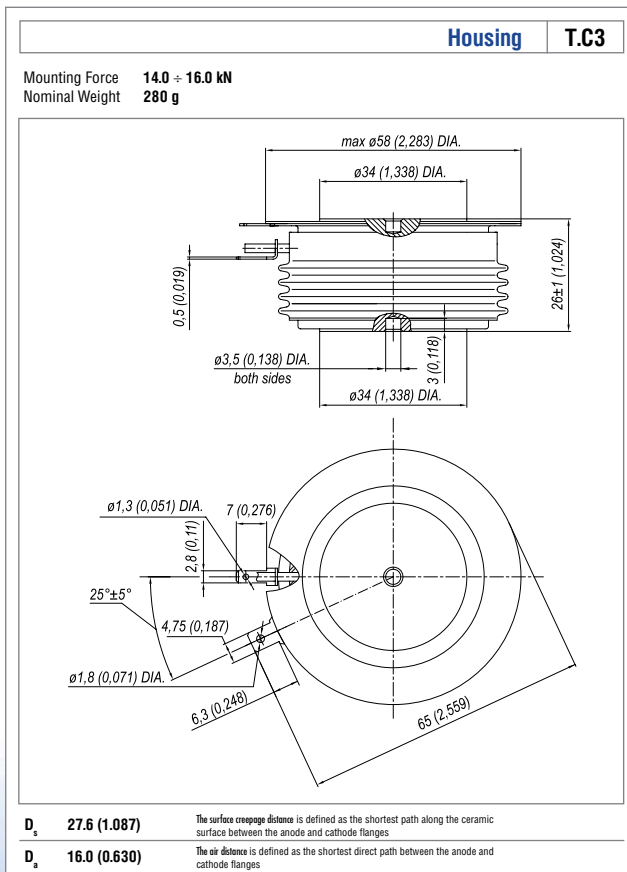
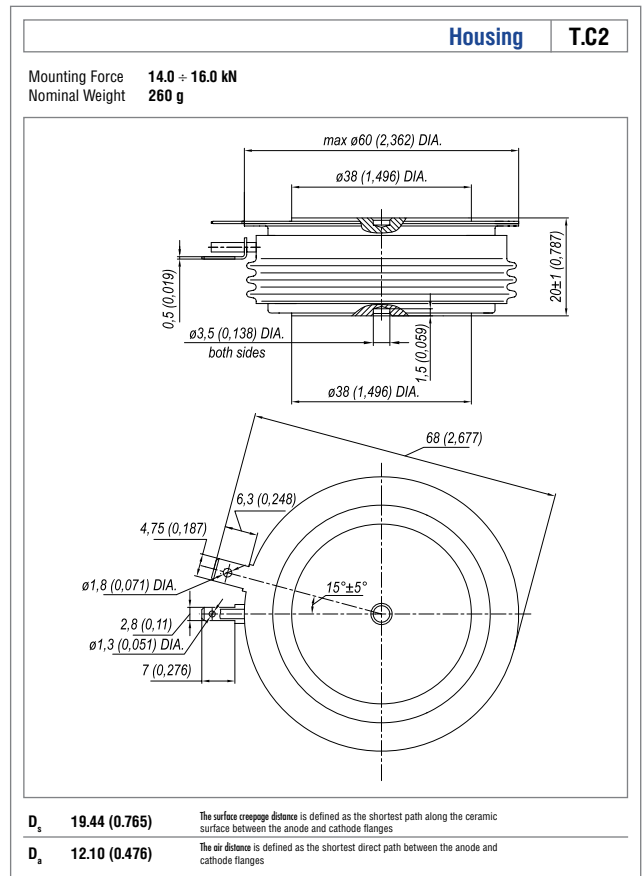
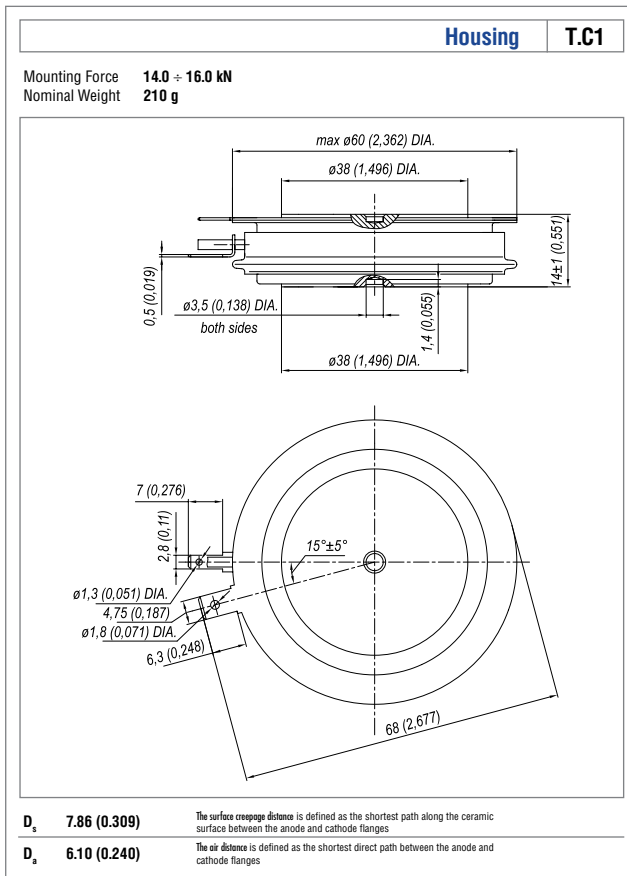
| Part Number | Ø of the element | V_{DRM} V_{RRM} | I_{TAV} | T_C | V_{TM} | I_{TM} | $V_{T(TO)}$ | r_T | t_q | T_{jmax} | R_{thjc} | Package | Recommended Heatsinks |
|--------------|------------------|------------------------|-----------|-------|----------|----------|-------------|-------|-------|------------|------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [μs] | [°C] | [°C/W] | | |
| up to 1800 V | | | | | | | | | | | | | |
| TFIS123-200 | 24 | 1000÷1400 | 200 | 83 | 3,30 | 628 | 1,40 | 3,200 | 6,3 | 125 | 0,0700 | T.A1 | 0123 |
| TFIS133-400 | 32 | 1000÷1200 | 400 | 81 | 3,00 | 1256 | 1,80 | 0,950 | 5,0 | 125 | 0,0400 | T.B2 | 0143, 0243, 0343 |
| TFIS143-500 | 40 | 1000÷1100 | 500 | 86 | 2,40 | 1570 | 1,40 | 0,800 | 5,0 | 125 | 0,0320 | T.C3 | 0143, 0243, 0343 |
| TFIS343-500 | 40 | 1000÷1200 | 500 | 89 | 2,40 | 1570 | 1,40 | 0,800 | 5,0 | 125 | 0,0300 | T.C1 | 0143, 0243, 0343 |
| TFIS153-800 | 56 | 1000÷1400 | 800 | 83 | 2,60 | 2512 | 1,50 | 0,500 | 8,0 | 125 | 0,0210 | T.D5 | 0153, 0253 |
| TFIS153-1000 | 56 | 1000÷1400 | 1000 | 78 | 2,30 | 3140 | 1,35 | 0,350 | 10,0 | 125 | 0,0210 | T.D5 | 0153, 0253 |

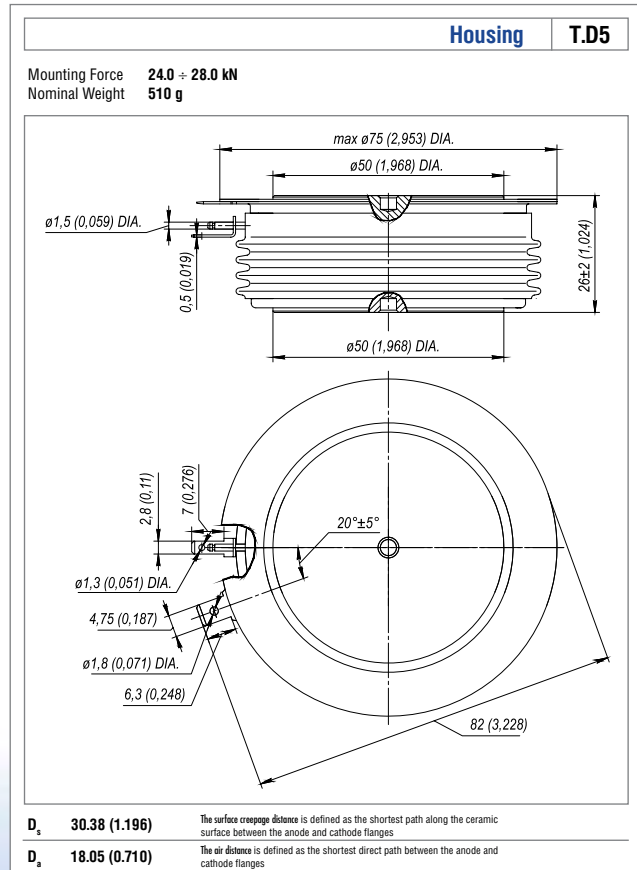
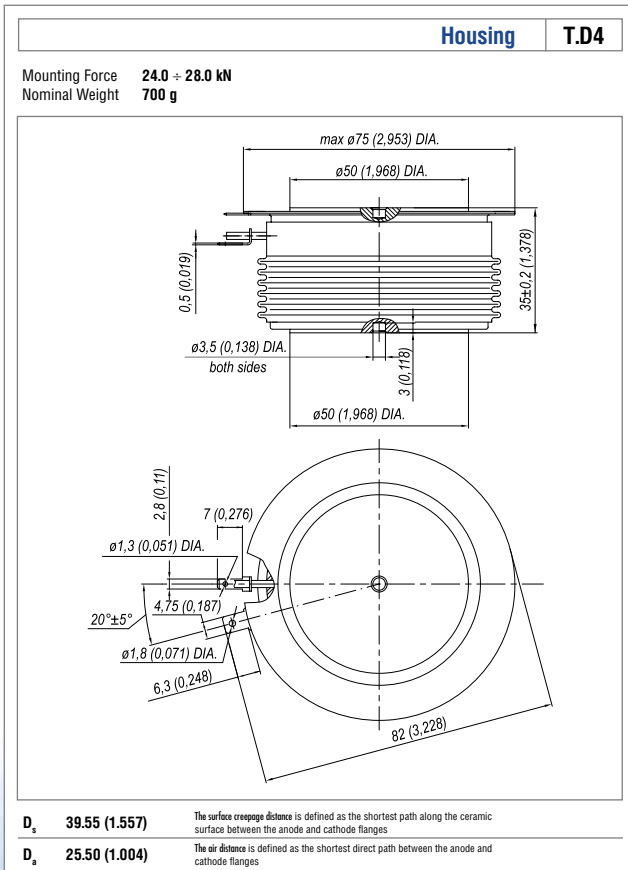
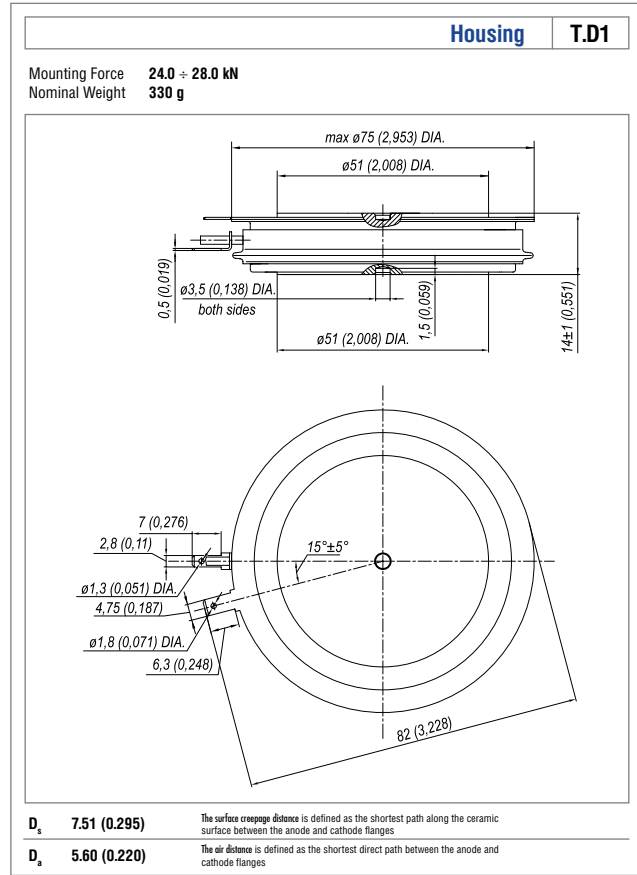
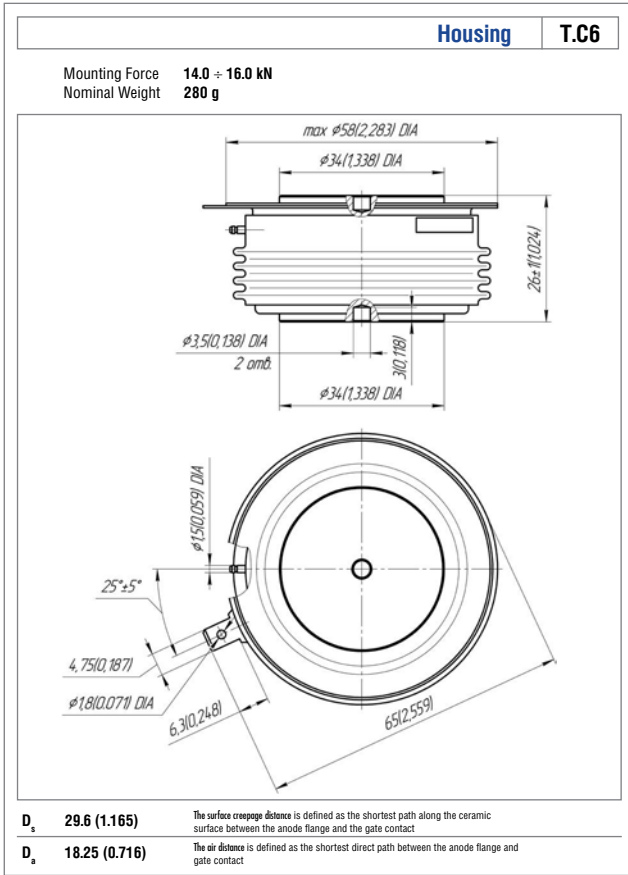
Fast Thyristors

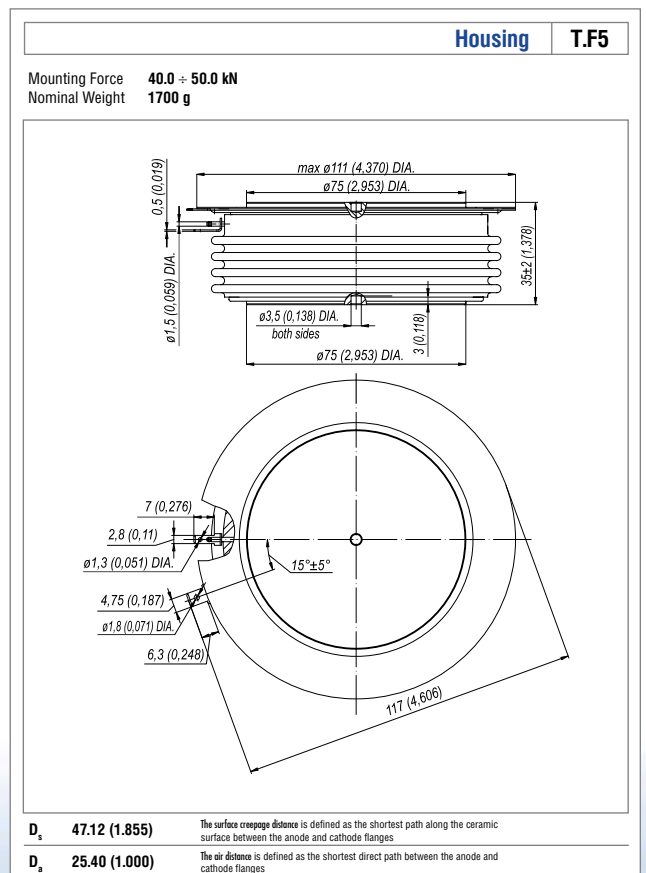
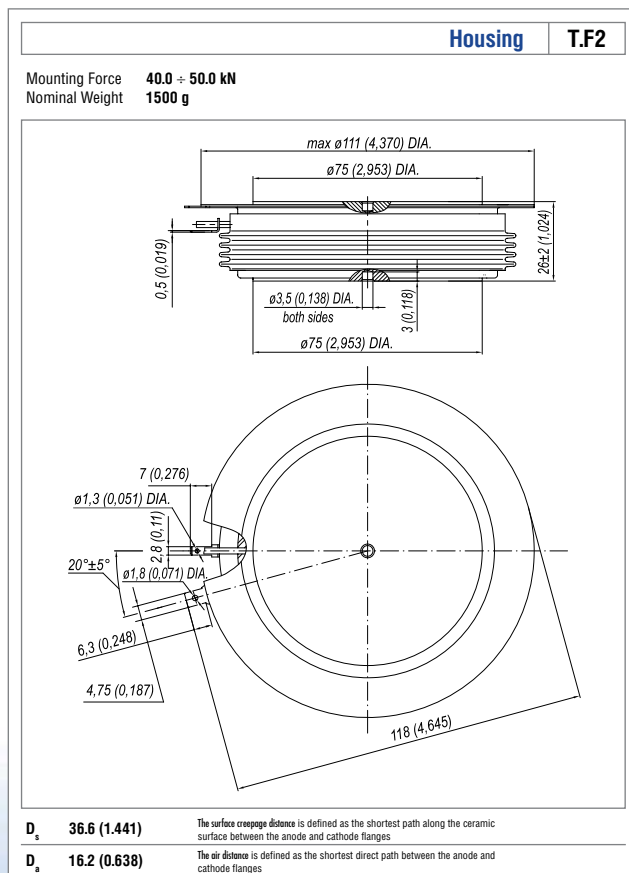
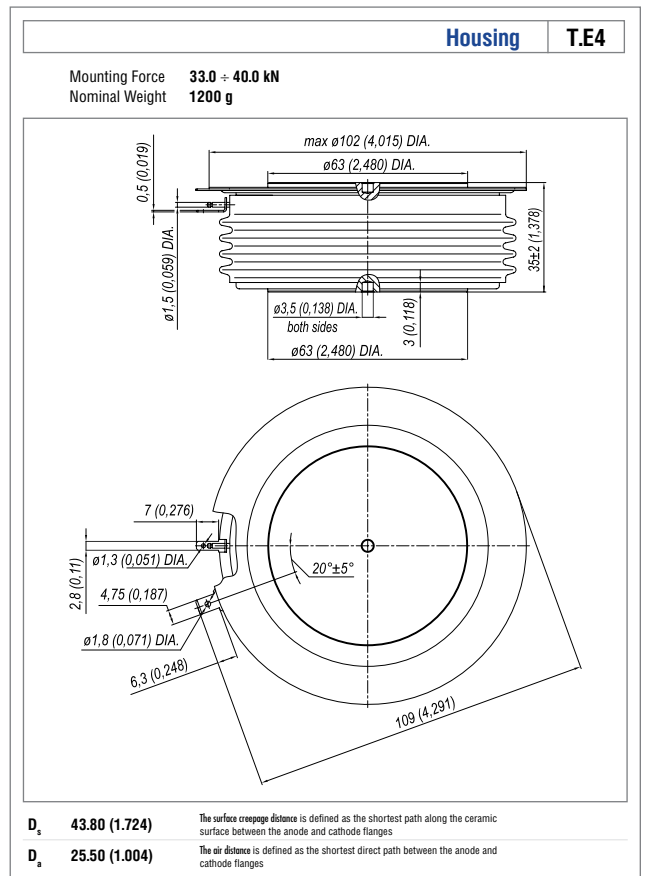
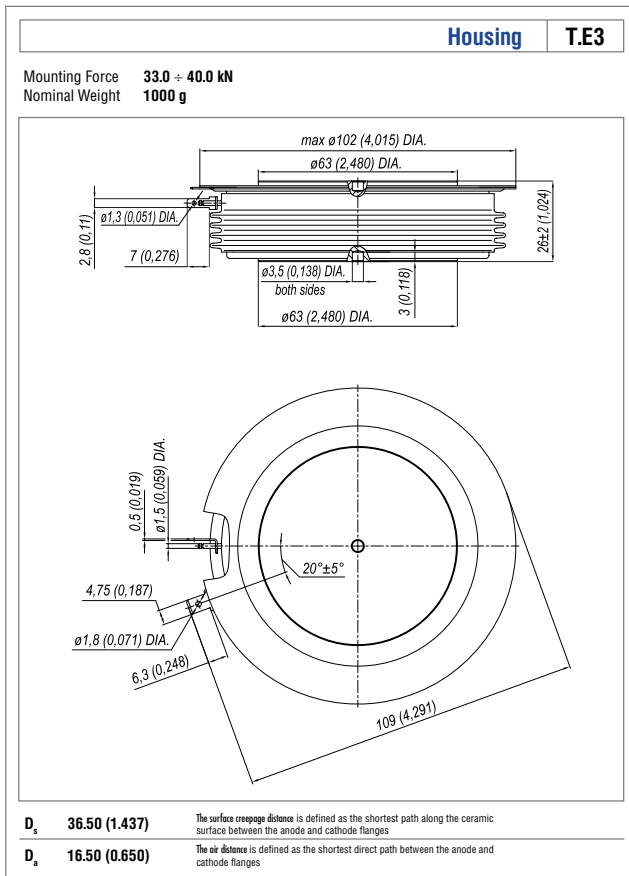
| Part Number | Ø of the element | V_{DRM} V_{RRM} | I_{TAV} | T_C | V_{TM} | I_{TM} | $V_{T(TO)}$ | r_T | t_q | T_{jmax} | R_{thjc} | Package | Recommended Heatsinks |
|--------------|------------------|------------------------|-----------|-------|----------|----------|-------------|-------|-------|------------|------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [μs] | [°C] | [°C/W] | | |
| up to 1200 V | | | | | | | | | | | | | |
| TFI133-400 | 32 | 1000÷1200 | 400 | 90 | 2,40 | 1256 | 1,35 | 0,850 | 10,0 | 125 | 0,0400 | T.B2 | 0143, 0243, 0343 |
| TFI433-400 | 32 | 1000÷1200 | 400 | 90 | 2,40 | 1256 | 1,35 | 0,850 | 10,0 | 125 | 0,0400 | T.B3 | 0143, 0243, 0343 |
| TFI443-400 | 40 | 1000÷1200 | 400 | 90 | 2,85 | 1256 | 1,50 | 1,400 | 25,0 | 125 | 0,0300 | T.C1 | 0143, 0243, 0343 |
| TFI573-2000 | 80 | 1000÷1200 | 2000 | 94 | 2,15 | 6280 | 1,40 | 0,080 | 10,0 | 125 | 0,0085 | T.F2 | 0173 |
| TFI173-2000 | 80 | 1000÷1200 | 2000 | 89 | 2,15 | 6280 | 1,40 | 0,080 | 10,0 | 125 | 0,0100 | T.F5 | 0173 |
| up to 1500 V | | | | | | | | | | | | | |
| TFI333-400 | 32 | 1000÷1500 | 400 | 90 | 2,40 | 1256 | 1,35 | 0,850 | 16,0 | 125 | 0,0400 | T.B2 | 0143, 0243, 0343 |
| TFI533-400 | 32 | 1000÷1500 | 400 | 90 | 2,40 | 1256 | 1,35 | 0,850 | 16,0 | 125 | 0,0400 | T.B3 | 0143, 0243, 0343 |
| TFI143-400 | 40 | 1000÷1500 | 400 | 90 | 2,85 | 1256 | 1,50 | 1,250 | 10,0 | 125 | 0,0320 | T.C3 | 0143, 0243, 0343 |
| TFI343-400 | 40 | 1000÷1500 | 400 | 92 | 2,85 | 1256 | 1,50 | 1,250 | 10,0 | 125 | 0,0300 | T.C1 | 0143, 0243, 0343 |
| TFI543-400 | 40 | 1000÷1500 | 400 | 90 | 2,85 | 1256 | 1,50 | 1,250 | 10,0 | 125 | 0,0320 | T.C2 | 0143, 0243, 0343 |
| TFI143-500 | 40 | 1000÷1500 | 500 | 86 | 2,40 | 1570 | 1,40 | 0,800 | 12,5 | 125 | 0,0320 | T.C3 | 0143, 0243, 0343 |
| TFI343-500 | 40 | 1000÷1500 | 500 | 89 | 2,40 | 1570 | 1,40 | 0,800 | 12,5 | 125 | 0,0300 | T.C1 | 0143, 0243, 0343 |
| TFI543-500 | 40 | 1000÷1500 | 500 | 86 | 2,40 | 1570 | 1,40 | 0,800 | 12,5 | 125 | 0,0320 | T.C2 | 0143, 0243, 0343 |
| TFI143-630 | 40 | 1000÷1500 | 630 | 80 | 2,30 | 1978 | 1,20 | 0,650 | 16,0 | 125 | 0,0320 | T.C3 | 0143, 0243, 0343 |
| TFI343-630 | 40 | 1000÷1500 | 630 | 83 | 2,30 | 1978 | 1,20 | 0,650 | 16,0 | 125 | 0,0300 | T.C1 | 0143, 0243, 0343 |
| TFI543-630 | 40 | 1000÷1500 | 630 | 80 | 2,30 | 1978 | 1,20 | 0,650 | 16,0 | 125 | 0,0320 | T.C2 | 0143, 0243, 0343 |
| TFI153-800 | 56 | 1000÷1500 | 800 | 85 | 2,50 | 2512 | 1,40 | 0,490 | 10,0 | 125 | 0,0210 | T.D5 | 0153, 0253 |
| TFI153-1000 | 56 | 1000÷1500 | 1000 | 80 | 2,25 | 3140 | 1,30 | 0,340 | 12,5 | 125 | 0,0210 | T.D5 | 0153, 0253 |
| TFI153-1250 | 56 | 1000÷1500 | 1250 | 70 | 2,10 | 3925 | 1,20 | 0,290 | 16,0 | 125 | 0,0210 | T.D5 | 0153, 0253 |

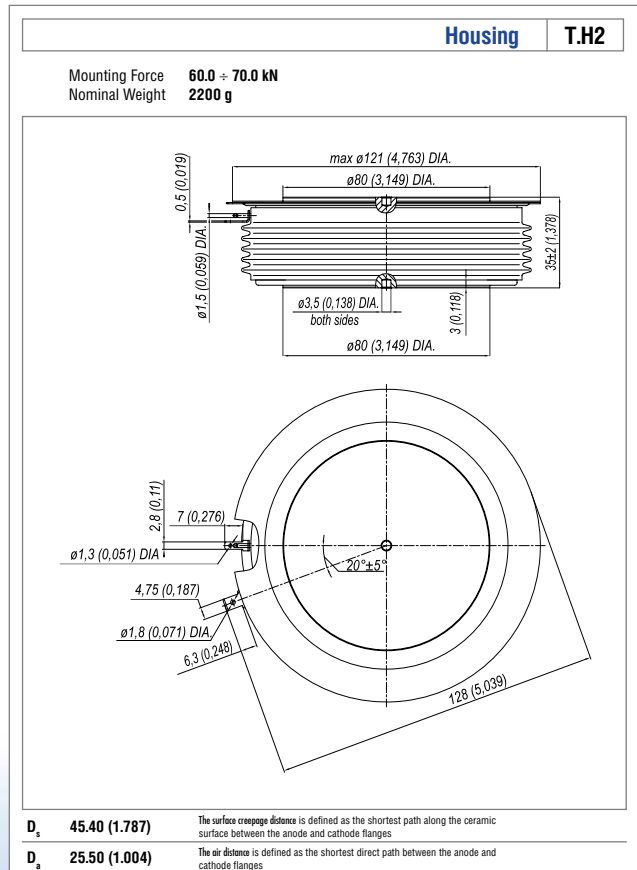
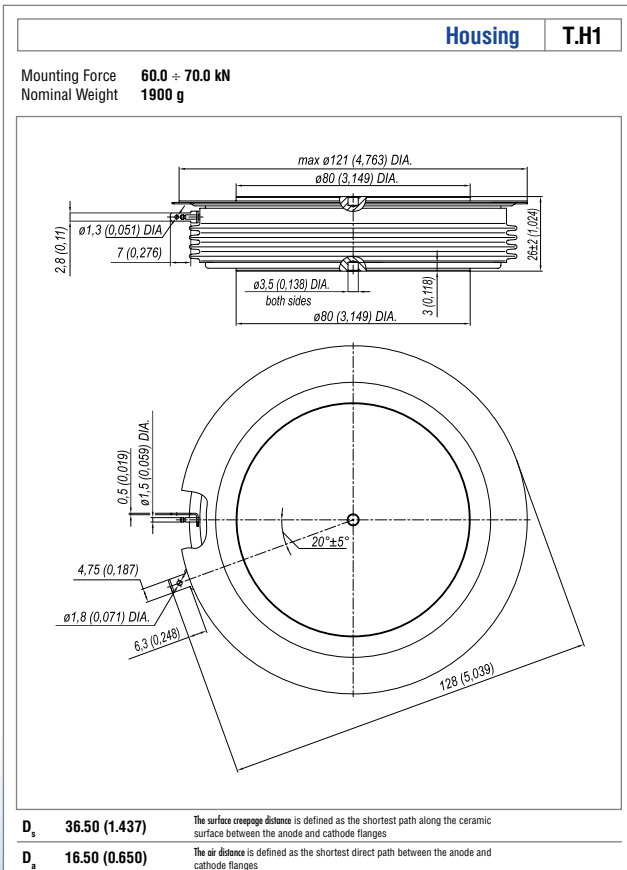
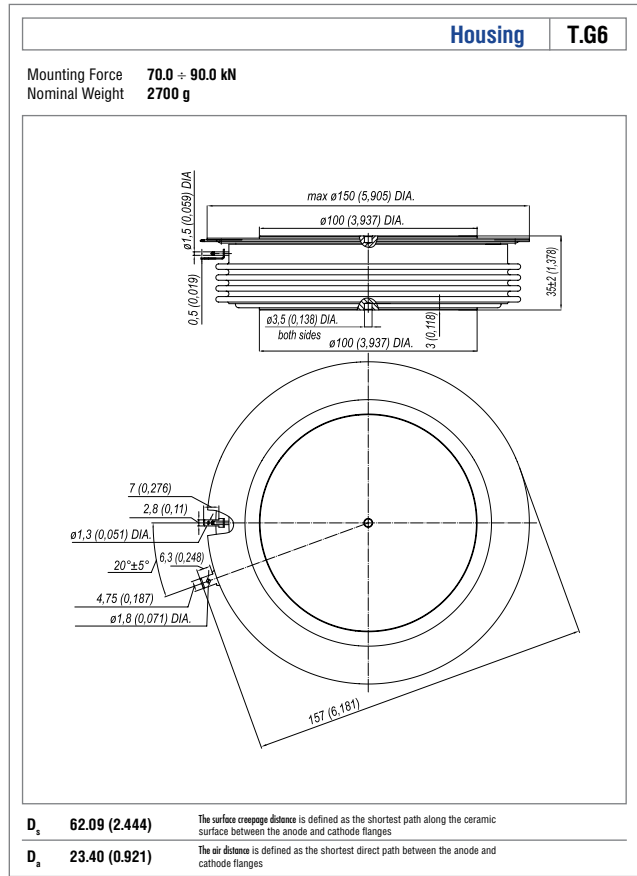
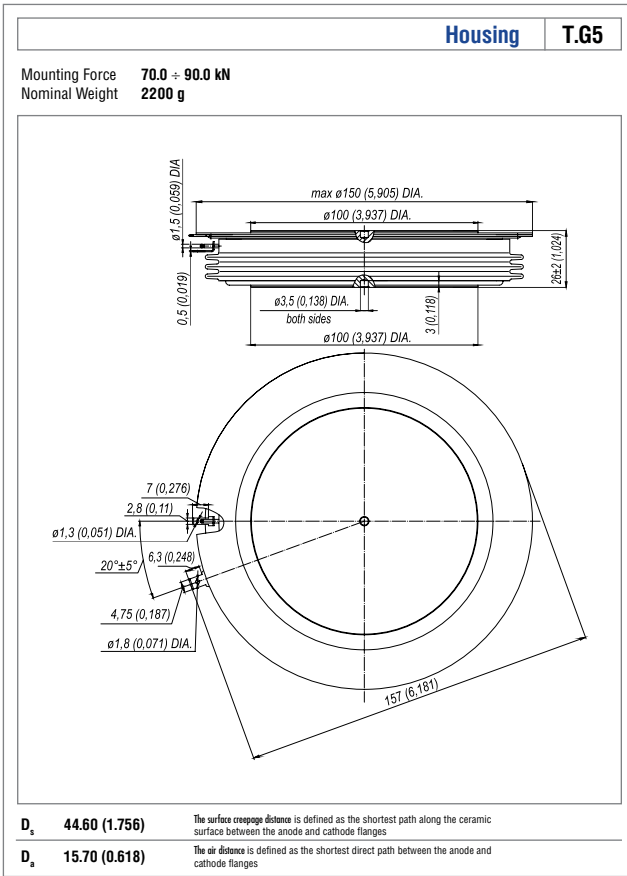
| Part Number | ∅ of the element | V_{DRM} | I_{TAV} | T_C | V_{TM} | I_{TM} | $V_{T(TO)}$ | r_T | t_q | T_{jmax} | R_{thjc} | Package | Recommended Heatsinks |
|--------------------|------------------|-----------|-----------|-------|----------|----------|-------------|-------|-------|------------|------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [μs] | [°C] | [°C/W] | | |
| up to 2200 V | | | | | | | | | | | | | |
| TFI243-400 | 40 | 2000÷2200 | 400 | 88 | 2,85 | 1256 | 1,50 | 1,400 | 25,0 | 125 | 0,0340 | T.C3 | 0143, 0243, 0343 |
| TFI643-400 | 40 | 2000÷2200 | 400 | 88 | 2,85 | 1256 | 1,50 | 1,400 | 25,0 | 125 | 0,0340 | T.C2 | 0143, 0243, 0343 |
| TFI243-500 | 40 | 2000÷2200 | 500 | 85 | 2,40 | 1570 | 1,40 | 0,800 | 32,0 | 125 | 0,0340 | T.C3 | 0143, 0243, 0343 |
| TFI443-500 | 40 | 2000÷2200 | 500 | 89 | 2,40 | 1570 | 1,20 | 0,650 | 32,0 | 125 | 0,0300 | T.C1 | 0143, 0243, 0343 |
| TFI643-500 | 40 | 2000÷2200 | 500 | 85 | 2,40 | 1570 | 1,40 | 0,800 | 32,0 | 125 | 0,0340 | T.C2 | 0143, 0243, 0343 |
| TFI243-630 | 40 | 2000÷2200 | 630 | 80 | 2,30 | 1978 | 1,20 | 0,650 | 32,0 | 125 | 0,0340 | T.C3 | 0143, 0243, 0343 |
| TFI443-630 | 40 | 2000÷2200 | 630 | 83 | 2,40 | 1570 | 1,20 | 0,650 | 32,0 | 125 | 0,0300 | T.C1 | 0143, 0243, 0343 |
| TFI643-630 | 40 | 2000÷2200 | 630 | 80 | 2,30 | 1978 | 1,20 | 0,650 | 32,0 | 125 | 0,0340 | T.C2 | 0143, 0243, 0343 |
| TFI253-800 | 56 | 2000÷2200 | 800 | 85 | 2,50 | 2512 | 1,40 | 0,490 | 20,0 | 125 | 0,0210 | T.D5 | 0153, 0253 |
| TFI253-1000 | 56 | 2000÷2200 | 1000 | 75 | 2,35 | 3140 | 1,20 | 0,470 | 20,0 | 125 | 0,0210 | T.D5 | 0153, 0253 |
| TFI253-1250 | 56 | 2000÷2200 | 1250 | 71 | 2,10 | 3140 | 1,25 | 0,300 | 50,0 | 125 | 0,0200 | T.D5 | 0153, 0253 |
| TFI673-2000 | 80 | 1800÷2000 | 2000 | 91 | 2,20 | 6280 | 1,25 | 0,150 | 32,0 | 125 | 0,0085 | T.F2 | 0173 |
| TFI273-2000 | 80 | 1800÷2000 | 2000 | 85 | 2,20 | 6280 | 1,25 | 0,150 | 32,0 | 125 | 0,0100 | T.F5 | 0173 |
| up to 2800 V | | | | | | | | | | | | | |
| TFI233-320 | 32 | 2000÷2400 | 320 | 85 | 2,60 | 1005 | 1,50 | 1,250 | 25,0 | 125 | 0,0500 | T.B3 | 0143, 0243, 0343 |
| TFI333-320 | 32 | 2000÷2400 | 320 | 85 | 2,60 | 1005 | 1,50 | 1,250 | 25,0 | 125 | 0,0500 | T.B2 | 0143, 0243, 0343 |
| TFI233-400 | 32 | 2000÷2400 | 400 | 80 | 2,10 | 1256 | 1,40 | 0,870 | 50,0 | 125 | 0,0500 | T.B3 | 0143, 0243, 0343 |
| TFI353-1000 | 56 | 2000÷2800 | 1000 | 81 | 2,25 | 3140 | 1,35 | 0,350 | 50,0 | 125 | 0,0200 | T.D5 | 0153, 0253 |
| TFI373-1600 | 80 | 2000÷2800 | 1600 | 90 | 2,26 | 5024 | 1,40 | 0,200 | 50,0 | 125 | 0,0100 | T.F5 | 0173 |
| TFI773-1600 | 80 | 2000÷2800 | 1600 | 95 | 2,26 | 5024 | 1,40 | 0,200 | 50,0 | 125 | 0,0085 | T.F2 | 0173 |
| TFI373-2000 | 80 | 2000÷2500 | 2000 | 84 | 2,05 | 6280 | 1,30 | 0,150 | 40,0 | 125 | 0,0100 | T.F5 | 0173 |
| TFI773-2000 | 80 | 2000÷2500 | 2000 | 90 | 2,05 | 6280 | 1,30 | 0,150 | 40,0 | 125 | 0,0085 | T.F2 | 0173 |
| up to 3600 V | | | | | | | | | | | | | |
| TFI933-250 | 34 | 3000÷3600 | 250 | 97 | 3,00 | 785 | 2,00 | 1,200 | 50,0 | 125 | 0,0400 | T.B3 | 0143, 0243, 0343 |
| TFI353-700 | 56 | 3000÷3000 | 700 | 87 | 2,85 | 2512 | 1,50 | 0,500 | 40,0 | 120 | 0,0200 | T.D5 | 0153, 0253 |
| TFI353-800 | 56 | 3000÷3400 | 800 | 80 | 2,60 | 2512 | 1,30 | 0,700 | 63,0 | 125 | 0,0210 | T.D5 | 0153, 0253 |
| up to 4400 V | | | | | | | | | | | | | |
| TFI473-1600 | 80 | 3800÷4000 | 1600 | 85 | 2,70 | 5024 | 1,44 | 0,270 | 125,0 | 125 | 0,0100 | T.F5 | 0173 |
| TFI873-1600 | 80 | 3800÷4000 | 1600 | 91 | 2,70 | 5024 | 1,44 | 0,270 | 125,0 | 125 | 0,0085 | T.F2 | 0173 |











Rectifier Diodes Overview

| | | | | | |
|---|---------------------|-----------------------|---------------------|-----------------------|-----------|
| 6500 | | | | D453-1250 | |
| 6000 | D123-200 | | | D353-800 | |
| 5000 | | | | | D273-2500 |
| 4400 | D233-500 • D333-500 | | D243-800 • D443-800 | | D173-2500 |
| 3600 | | | | D353-1600 | D173-3200 |
| 2800 | D123-320 | D133-630 • D333-630 | | D173-4000 | |
| 2600 | | | | D243-1000 • D443-1000 | |
| 2400 | | | | D253-1600 | |
| 2000 | D333-800 | | D173-5000 | | |
| 1800 | D123-500 | D133-1000 • D233-1000 | | D143-1250 • D343-1250 | D253-2000 |
| Blocking voltage [V] ∅ of the element [mm] | 24 | 32 | 40 | 56 | 80 |

Fast Diodes Overview

| | | | | | |
|---|------------------------|-----------|-----------|------------|------------|
| 4400 | | | DF443-320 | DF453-800 | |
| 3600 | | | | | DF373-2000 |
| 2800 | DF233-400 | | DF253-630 | | DF273-1600 |
| 2400 | DF233-200 | | DF243-800 | DF253-1000 | DF273-2000 |
| 1800 | DF243-630 • DF243-1000 | | | DF153-630 | DF173-2000 |
| 1600 | DF223-320 | | | | |
| 1200 | DF123-320 | DF133-500 | DF243-500 | DF153-1000 | |
| Blocking voltage [V] ∅ of the element [mm] | 24 | 32 | 40 | 56 | 80 |

Avalanche Diodes Overview

| | | | | | |
|---|-----------|-----------|------------|--------------------------|--------------------------|
| 6000 | | | | DA153-800 | |
| 3200 | | | DA153-1600 | DA273-3200 | |
| 2800 | | | DA243-500 | DA153-1250 DA253-1600 | DA173-3200 DA173-4000 |
| 1800 | DA123-320 | DA333-500 | DA253-2000 | | DA173-5000 |
| Blocking voltage [V] ∅ of the element [mm] | 24 | 32 | 40 | 56 | 80 |

Welding Diodes Overview

| | | | | | |
|---|-----------|--|--|--|--|
| 400 | D053-7100 | | | | |
| Blocking voltage [V] ∅ of the element [mm] | 51 | | | | |

Part numbering guide

| | | | | | | | |
|----------|------------|---|------------|---|-----------|---|----------|
| D | 123 | - | 500 | - | 18 | - | N |
| 1 | 2 | | 3 | | 4 | | 5 |

1. D — Rectifier diode / DF — Fast diode / DA — Avalanche diode / D — Welding diode
2. Design version
3. Mean forward current, A
4. Voltage code
5. Ambient conditions: N - normal; T - tropical

Rectifier Diodes

| Part Number | ∅ of the element | V _{RRM} | I _{FAV} | T _C | V _{FM} | I _{FM} | V _T ^{F(T0)} _{j max} | r _T | T _{j max} | R _{thjc} | Package | Recommended Heatsinks |
|------------------|------------------|------------------|------------------|----------------|-----------------|-----------------|--|----------------|--------------------|-------------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [°C] | [°C/W] | | |
| up to 1800 V | | | | | | | | | | | | |
| D123-500 | 24 | 1000±1800 | 500 | 137 | 1,55 | 1570 | 0,90 | 0,500 | 190 | 0,0700 | D.A1 | 0123 |
| D133-1000 | 32 | 1000±1800 | 1000 | 117 | 1,55 | 3140 | 0,95 | 0,350 | 190 | 0,0400 | D.B1 | 0143, 0243, 0343 |
| D233-1000 | 32 | 1000±1800 | 1000 | 117 | 1,55 | 3140 | 0,95 | 0,350 | 190 | 0,0400 | D.B2 | 0143, 0243, 0343 |
| D143-1250 | 40 | 1000±1800 | 1250 | 121 | 1,65 | 3925 | 0,95 | 0,250 | 190 | 0,0320 | D.C2 | 0143, 0243, 0343 |
| D343-1250 | 40 | 1000±1800 | 1250 | 114 | 1,65 | 3925 | 0,95 | 0,250 | 190 | 0,0350 | D.C3 | 0143, 0243, 0343 |
| D253-2000 | 56 | 1000±1800 | 2000 | 138 | 1,55 | 6280 | 0,95 | 0,100 | 190 | 0,0180 | D.D3 | 0153, 0253 |
| D173-6300 | 80 | 1000±1800 | 6300 | 102 | 1,30 | 12560 | 0,70 | 0,043 | 175 | 0,0085 | D.F1 | 0173 |
| up to 2800 V | | | | | | | | | | | | |
| D123-320 | 24 | 2000±2800 | 320 | 135 | 2,00 | 1005 | 1,00 | 1,000 | 175 | 0,0700 | D.A1 | 0123 |
| D133-630 | 32 | 2000±2800 | 630 | 133 | 1,60 | 1978 | 1,10 | 0,350 | 175 | 0,0400 | D.B2 | 0143, 0243, 0343 |
| D333-630 | 32 | 2000±2800 | 630 | 128 | 1,60 | 1978 | 1,10 | 0,350 | 175 | 0,0450 | D.B3 | 0143, 0243, 0343 |
| D333-800 | 32 | 1800±2000 | 800 | 134 | 1,60 | 2512 | 1,00 | 0,270 | 190 | 0,0450 | D.B3 | 0143, 0243, 0343 |
| D243-1000 | 40 | 2000±2600 | 1000 | 122 | 1,65 | 3140 | 0,95 | 0,280 | 175 | 0,0320 | D.C2 | 0143, 0243, 0343 |
| D443-1000 | 40 | 2000±2600 | 1000 | 117 | 1,65 | 3140 | 0,95 | 0,280 | 175 | 0,0350 | D.C3 | 0143, 0243, 0343 |
| D253-1600 | 56 | 2000±2400 | 1600 | 147 | 1,50 | 5024 | 1,00 | 0,120 | 190 | 0,0180 | D.D3 | 0153, 0253 |
| D173-4000 | 80 | 2000±2800 | 4000 | 124 | 1,80 | 12560 | 0,85 | 0,065 | 175 | 0,0085 | D.F1 | 0173 |
| D173-5000 | 80 | 2000 | 5000 | 109 | 1,65 | 12560 | 0,75 | 0,650 | 175 | 0,0085 | D.F1 | 0173 |
| up to 3600 V | | | | | | | | | | | | |
| D353-1600 | 56 | 3000±3600 | 1600 | 133 | 2,00 | 5024 | 0,85 | 0,150 | 175 | 0,0180 | D.D3 | 0153, 0253 |
| D173-3200 | 80 | 3000±3600 | 3200 | 109 | 1,80 | 10048 | 1,25 | 0,080 | 160 | 0,0085 | D.F1 | 0173 |
| up to 4400 V | | | | | | | | | | | | |
| D233-500 | 32 | 3800±4400 | 500 | 106 | 2,00 | 1570 | 1,05 | 0,900 | 150 | 0,0400 | D.B2 | 0143, 0243, 0343 |
| D333-500 | 32 | 3800±4400 | 500 | 101 | 2,00 | 1570 | 1,05 | 0,900 | 150 | 0,0450 | D.B3 | 0143, 0243, 0343 |
| D243-800 | 40 | 3800±4400 | 800 | 99 | 1,95 | 2512 | 1,00 | 0,500 | 150 | 0,0320 | D.C2 | 0143, 0243, 0343 |
| D443-800 | 40 | 3800±4400 | 800 | 94 | 1,95 | 2512 | 1,00 | 0,500 | 150 | 0,0350 | D.C3 | 0143, 0243, 0343 |
| D173-2500 | 80 | 3800±4400 | 2500 | 116 | 1,80 | 7850 | 0,80 | 0,125 | 150 | 0,0085 | D.F1 | 0173 |
| up to 6500 V | | | | | | | | | | | | |
| D123-200 | 24 | 4600±6000 | 200 | 116 | 2,50 | 628 | 1,10 | 2,600 | 150 | 0,0700 | D.A1 | 0123 |
| D353-800 | 56 | 4600±6000 | 800 | 100 | 2,40 | 2512 | 1,31 | 0,740 | 140 | 0,0180 | D.D3 | 0143, 0243, 0343 |
| D453-1250 | 56 | 4600±6500 | 1250 | 101 | 2,40 | 3925 | 0,95 | 0,400 | 150 | 0,0180 | D.D3 | 0143, 0243, 0343 |
| D273-2500 | 80 | 4600±5000 | 2500 | 112 | 1,90 | 7850 | 0,85 | 0,150 | 150 | 0,0085 | D.F1 | 0173 |

Welding Diodes

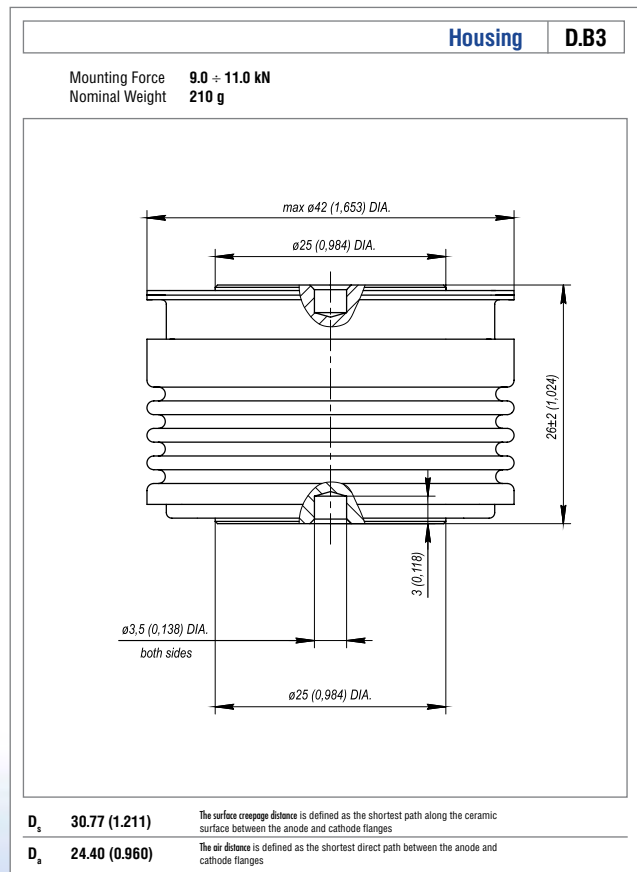
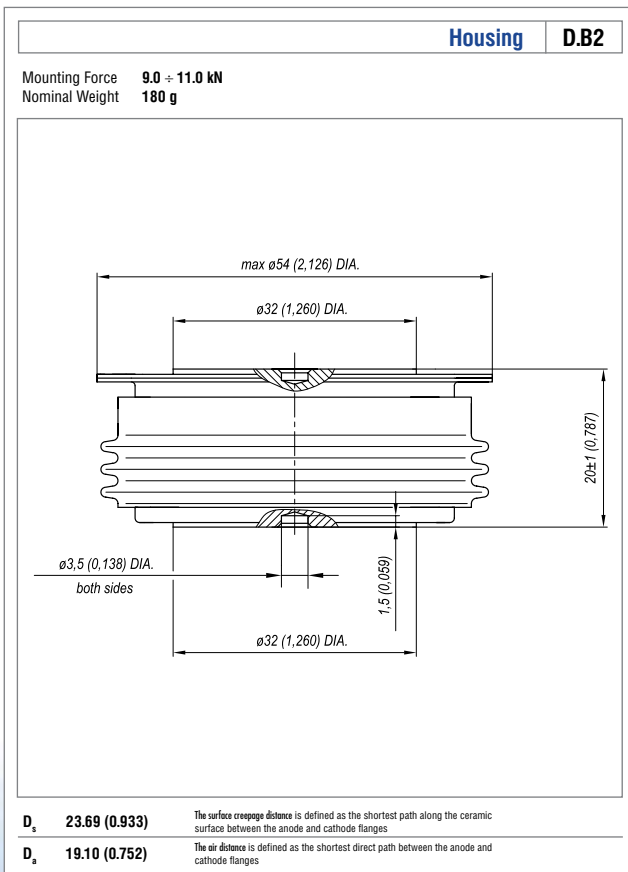
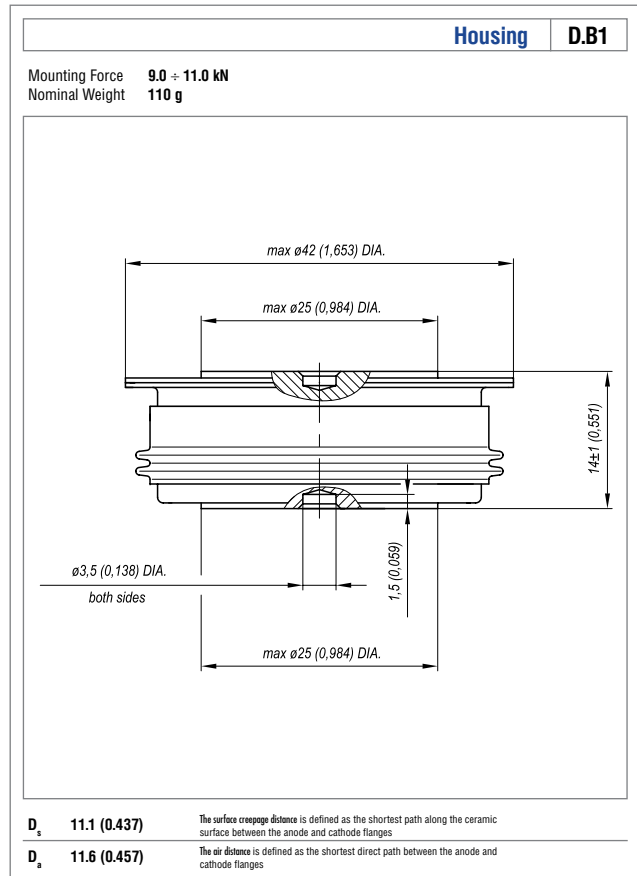
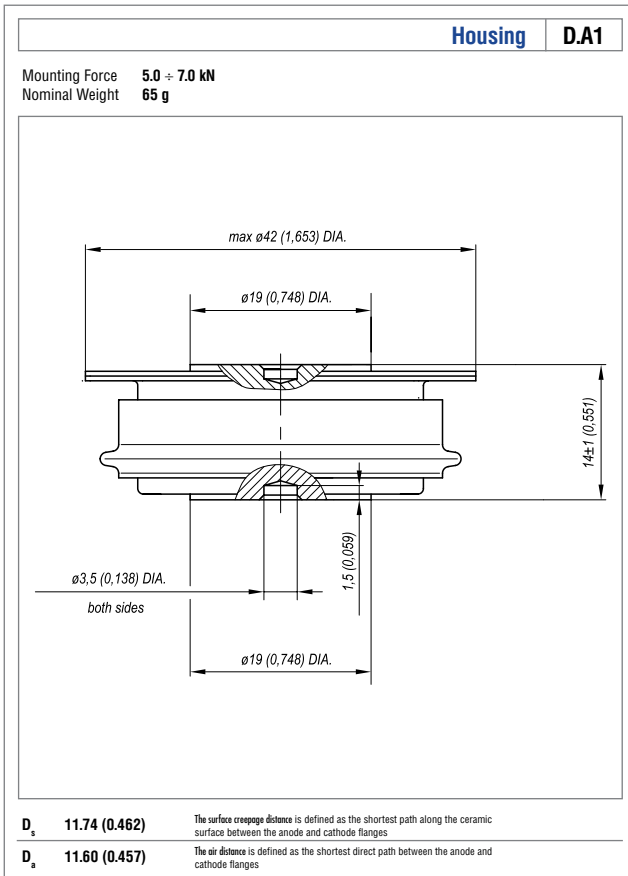
| Part Number | ∅ of the element | V _{RRM} | I _{FAV} | T _C | V _{FM} | I _{FM} | V _T ^{F(T0)} _{j max} | r _T | T _{j max} | R _{thjc} | Package | Recommended Heatsinks |
|------------------|------------------|------------------|------------------|----------------|-----------------|-----------------|--|----------------|--------------------|-------------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [°C] | [°C/W] | | |
| D053-7100 | 51 | 200±400 | 7100 | 84,5 | 1,05 | 5000 | 0,70 | 0,029 | 170 | 0,0100 | D.H1 | - |

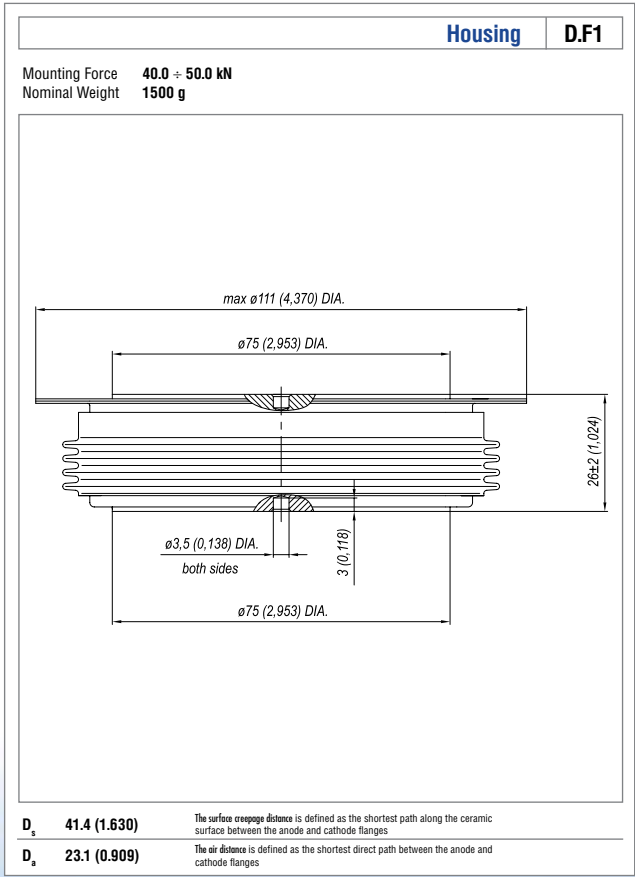
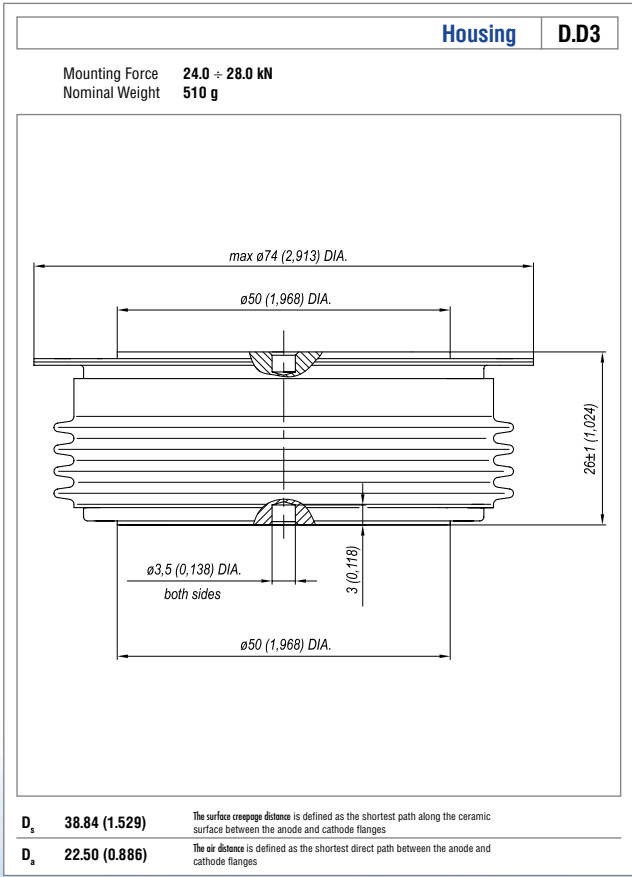
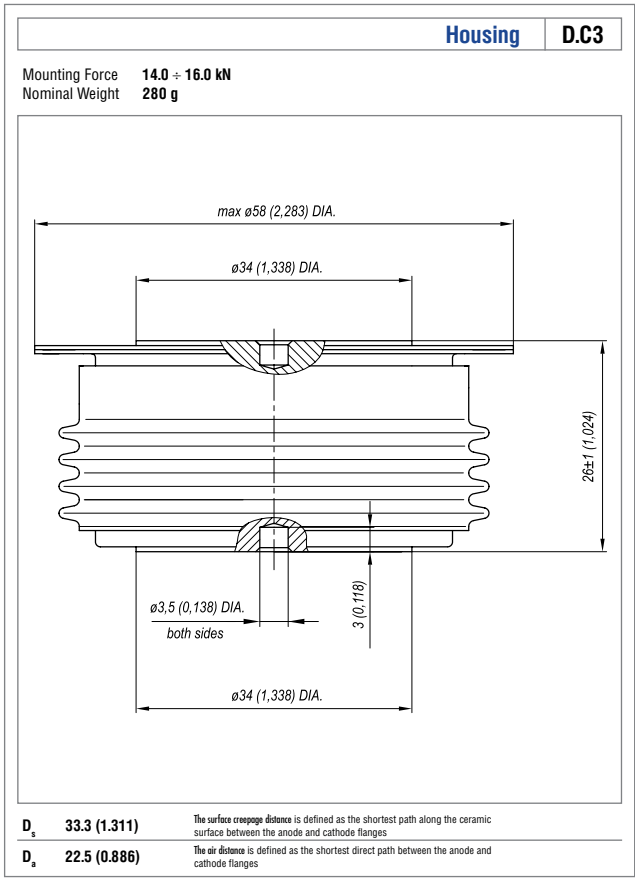
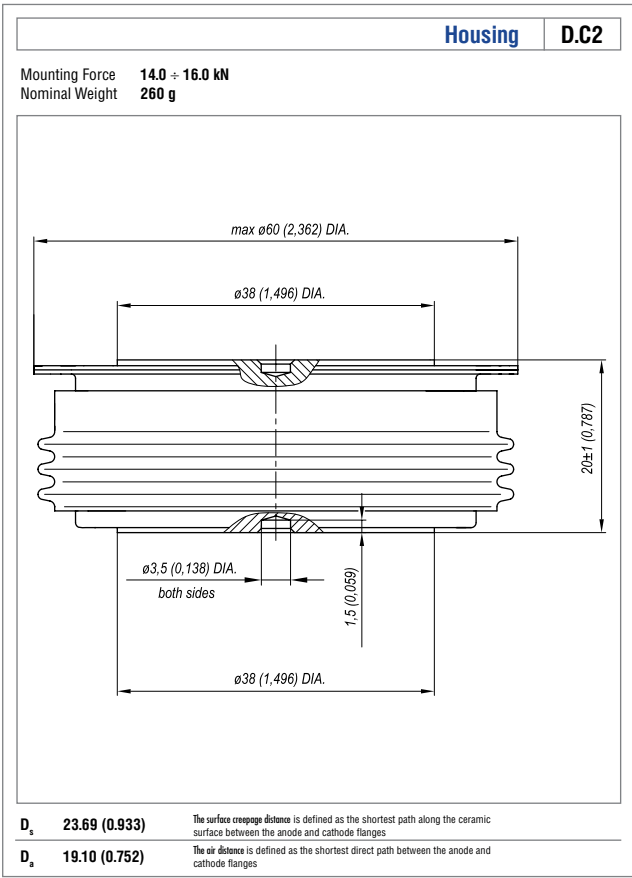
Fast Diodes

| Part Number | ∅ of the element | V_{RRM} | I_{FAV} | T_C | V_{FM} | I_{FM} | $V_{T_j^{(TO)}}$ | r_T | t_{rr} | T_{jmax} | R_{thjc} | Package | Recommended Heatsinks |
|--------------|------------------|-----------|-----------|-------|----------|----------|------------------|-------|----------|------------|------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [μs] | [°C] | [°C/W] | | |
| up to 1800 V | | | | | | | | | | | | | |
| DF123-320 | 24 | 1000÷1200 | 320 | 108 | 1,70 | 1005 | 1,20 | 0,850 | 3,2 | 150 | 0,0700 | D.A1 | 0123 |
| DF223-320 | 24 | 1000÷1600 | 320 | 102 | 2,20 | 1005 | 1,25 | 1,100 | 2,5 | 150 | 0,0700 | D.A1 | 0123 |
| DF133-500 | 32 | 1000÷1200 | 500 | 91 | 2,20 | 1570 | 1,25 | 0,350 | 2,5 | 125 | 0,0400 | D.B1 | 0143, 0243, 0343 |
| DF243-500 | 40 | 1000÷1200 | 500 | 97 | 2,30 | 1570 | 1,25 | 0,400 | 2,0 | 125 | 0,0320 | D.C2 | 0143, 0243, 0343 |
| DF243-630 | 40 | 1000÷1800 | 630 | 91 | 2,30 | 1978 | 1,20 | 0,300 | 3,2 | 125 | 0,0320 | D.C2 | 0143, 0243, 0343 |
| DF243-1000 | 40 | 1000÷1800 | 1000 | 68 | 1,80 | 3140 | 1,15 | 0,250 | 5,0 | 125 | 0,0320 | D.C2 | 0143, 0243, 0343 |
| DF153-630 | 56 | 1000÷1800 | 630 | 105 | 3,00 | 1978 | 1,25 | 0,300 | 2,5 | 125 | 0,0180 | D.D3 | 0153, 0253 |
| DF153-1000 | 56 | 1000÷1200 | 1000 | 95 | 1,90 | 3140 | 1,15 | 0,200 | 2,5 | 125 | 0,0180 | D.D3 | 0153, 0253 |
| DF173-2000 | 80 | 1000÷1800 | 2000 | 93 | 1,80 | 6280 | 1,20 | 0,130 | 6,3 | 125 | 0,0085 | D.F1 | 0173 |
| up to 2800 V | | | | | | | | | | | | | |
| DF233-200 | 32 | 2000÷2400 | 200 | 107 | 2,20 | 628 | 1,35 | 1,700 | 1,25 | 125 | 0,0400 | D.B2 | 0143, 0243, 0343 |
| DF233-400 | 32 | 2000÷2800 | 400 | 94 | 1,90 | 1256 | 1,20 | 0,700 | 5,0 | 125 | 0,0400 | D.B2 | 0143, 0243, 0343 |
| DF243-800 | 40 | 2000÷2400 | 800 | 74 | 2,20 | 2512 | 1,30 | 0,350 | 4,0 | 125 | 0,0320 | D.C2 | 0143, 0243, 0343 |
| DF253-630 | 56 | 2000÷2800 | 630 | 103 | 3,00 | 1978 | 1,35 | 0,350 | 3,2 | 125 | 0,0180 | D.D3 | 0153, 0253 |
| DF253-1000 | 56 | 2000÷2400 | 1000 | 89 | 2,20 | 3140 | 1,35 | 0,250 | 4,0 | 125 | 0,0180 | D.D3 | 0153, 0253 |
| DF273-1600 | 80 | 2000÷2800 | 1600 | 98 | 2,10 | 5024 | 1,30 | 0,170 | 8,0 | 125 | 0,0085 | D.F1 | 0173 |
| DF273-2000 | 80 | 2000÷2400 | 2000 | 90 | 1,85 | 6280 | 1,30 | 0,150 | 8,0 | 125 | 0,0085 | D.F1 | 0173 |
| up to 3600 V | | | | | | | | | | | | | |
| DF373-2000 | 80 | 3000÷3600 | 2000 | 84 | 2,10 | 6280 | 1,40 | 0,200 | 16,0 | 125 | 0,0085 | D.F1 | 0173 |
| up to 4400 V | | | | | | | | | | | | | |
| DF443-320 | 40 | 3800÷4400 | 320 | 90 | 3,60 | 1000 | 1,50 | 2,000 | 4,0 | 125 | 0,0350 | D.C3 | 0143, 0243, 0343 |
| DF453-800 | 56 | 3800÷4400 | 800 | 85 | 2,90 | 2512 | 1,40 | 0,700 | 5,3 | 125 | 0,0180 | D.D3 | 0153, 0253 |

Avalanche Diodes

| Part Number | ∅ of the element | V_{RRM} | I_{FAV} | T_C | V_{FM} | I_{FM} | $V_{T_j^{(TO)}}$ | r_T | T_{jmax} | R_{thjc} | Package | Recommended Heatsinks |
|--------------|------------------|-----------|-----------|-------|----------|----------|------------------|-------|------------|------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [°C] | [°C/W] | | |
| up to 1800 V | | | | | | | | | | | | |
| DA123-320 | 24 | 1000÷1800 | 320 | 110 | 1,60 | 1005 | 0,95 | 1,050 | 150 | 0,0700 | D.A1 | 0123 |
| DA333-500 | 32 | 1000÷1800 | 500 | 120 | 1,60 | 1570 | 0,95 | 0,440 | 150 | 0,0400 | D.B2 | 0143, 0243, 0343 |
| DA253-2000 | 56 | 1000÷1800 | 2000 | 101 | 2,00 | 6280 | 0,95 | 0,220 | 175 | 0,0180 | D.D3 | 0153, 0253 |
| DA173-5000 | 80 | 1000÷1800 | 5000 | 84 | 2,00 | 12560 | 0,60 | 0,125 | 175 | 0,0085 | D.F1 | 0173 |
| up to 2800 V | | | | | | | | | | | | |
| DA243-500 | 40 | 2000÷2800 | 500 | 118 | 2,00 | 1570 | 1,00 | 0,800 | 150 | 0,0320 | D.C2 | 0143, 0243, 0343 |
| DA153-1250 | 56 | 2000÷2800 | 1250 | 121 | 2,20 | 3925 | 1,00 | 0,450 | 175 | 0,0180 | D.D3 | 0153, 0253 |
| DA253-1600 | 56 | 2000÷2800 | 1600 | 112 | 2,10 | 5024 | 1,00 | 0,300 | 175 | 0,0180 | D.D3 | 0153, 0253 |
| DA173-3200 | 80 | 2000÷2800 | 3200 | 115 | 2,00 | 10048 | 1,00 | 0,150 | 175 | 0,0085 | D.F1 | 0173 |
| DA173-4000 | 80 | 2000÷2800 | 4000 | 107 | 2,20 | 12560 | 1,00 | 0,100 | 175 | 0,0085 | D.F1 | 0173 |
| up to 3600 V | | | | | | | | | | | | |
| DA153-1600 | 56 | 2400÷3200 | 1600 | 111 | 2,00 | 5024 | 0,95 | 0,320 | 175 | 0,0180 | D.D3 | 0153, 0253 |
| DA273-3200 | 80 | 3000÷3200 | 3200 | 103 | 2,20 | 10048 | 1,05 | 0,200 | 175 | 0,0085 | D.F1 | 0173 |
| up to 6000 V | | | | | | | | | | | | |
| DA153-800 | 56 | 4600÷6000 | 800 | 108 | 2,20 | 2512 | 0,90 | 0,650 | 140 | 0,0180 | D.D3 | 0153, 0253 |





Phase Control Thyristors Overview

| | | |
|-----------------------|------------------------------|--|
| 1600 | T161-125 • 161-160 • 161-200 | T171-200 • T171-250 • T171-320 T175-200 • T275-250 • T275-320 T371-200 • T471-250 • T471-320 |
| 800 | | T175-250 • T175-320 • T271-250 T271-320 • T371-250 • T371-320 |
| Blocking voltage [V] | 24 | 32 |
| ∅ of the element [mm] | | |

Fast Thyristors Overview

| | | |
|-----------------------|-------------------------|---|
| 1400 | TFI261-125 • TFI261-160 | TFI271-160 • TFI271-200 • TFI271-250 TFI271-320 • TFI175-200 • TFI175-250 TFI371-200 • TFI371-250 |
| Blocking voltage [V] | 24 | 32 |
| ∅ of the element [mm] | | |

Rectifier Diodes Overview

| | | |
|-----------------------|--|---------------------------------|
| 1800 | D161-200 • D161-250 D161-320 • D161-400 | D171-400 • D175-400 D271-400 |
| 1200 | | D171-500 • D175-500 D271-500 |
| Blocking voltage [V] | 24 | 32 |
| ∅ of the element [mm] | | |

Fast Diodes Overview

| | | |
|-----------------------|-----------|-----------|
| 1600 | DF261-250 | |
| 1400 | DF261-320 | DF271-400 |
| Blocking voltage [V] | 24 | 32 |
| ∅ of the element [mm] | | |

Avalanche Diodes Overview

| | | |
|-----------------------|-----------|-----------|
| 1800 | DA161-200 | DA171-320 |
| Blocking voltage [V] | 24 | 32 |
| ∅ of the element [mm] | | |

Part numbering guide

| | | | | | | | | | | |
|------------|------------|---|------------|---|-----------|---|-----------|-----------|---|----------|
| TFI | 261 | - | 125 | - | 14 | - | A2 | T3 | - | N |
| 1 | 2 | | 3 | | 4 | | 5 | 6 | | 7 |

1. T — Phase control thyristor / TFI — Fast thyristor
2. Design version
3. Mean on-state current, A
4. Voltage code
5. Critical rate of rise of off-state voltage
6. Group of turn-off time
7. Ambient conditions: N - normal; T - tropical

| | | | | | | | | | | |
|-----------|------------|---|------------|---|---|-----------|---|-----------|---|----------|
| DF | 261 | - | 250 | | - | 16 | - | M4 | - | N |
| 1 | 2 | | 3 | 4 | | 5 | | 6 | | 7 |

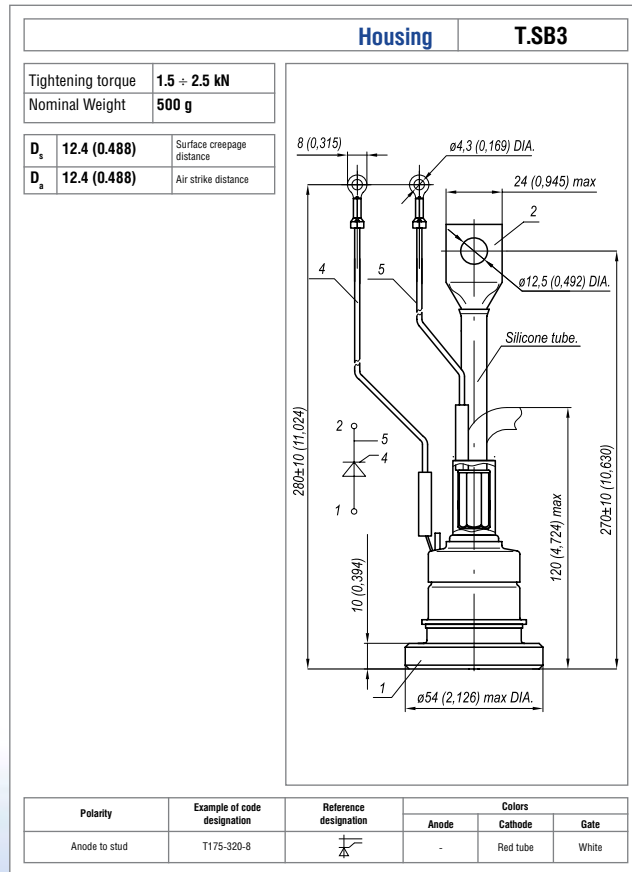
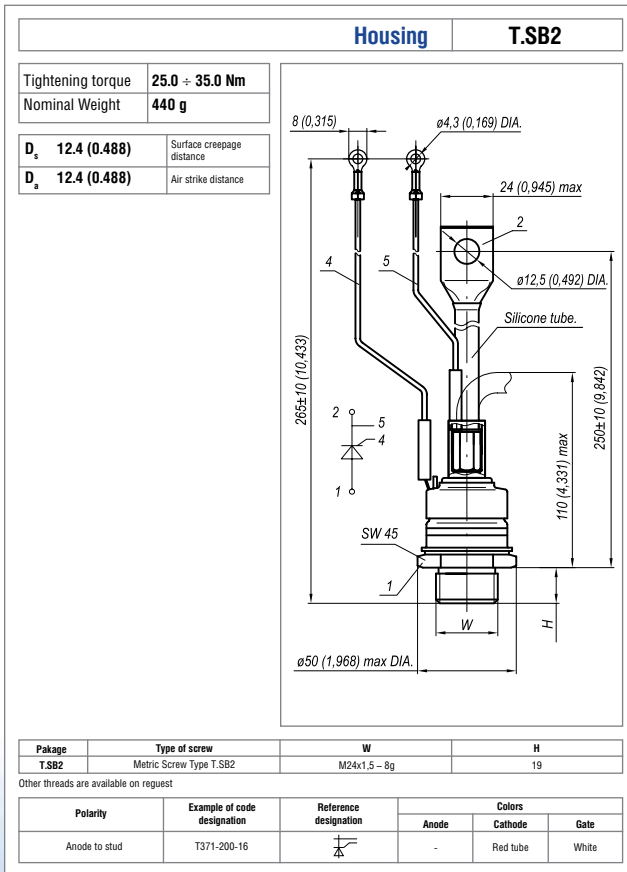
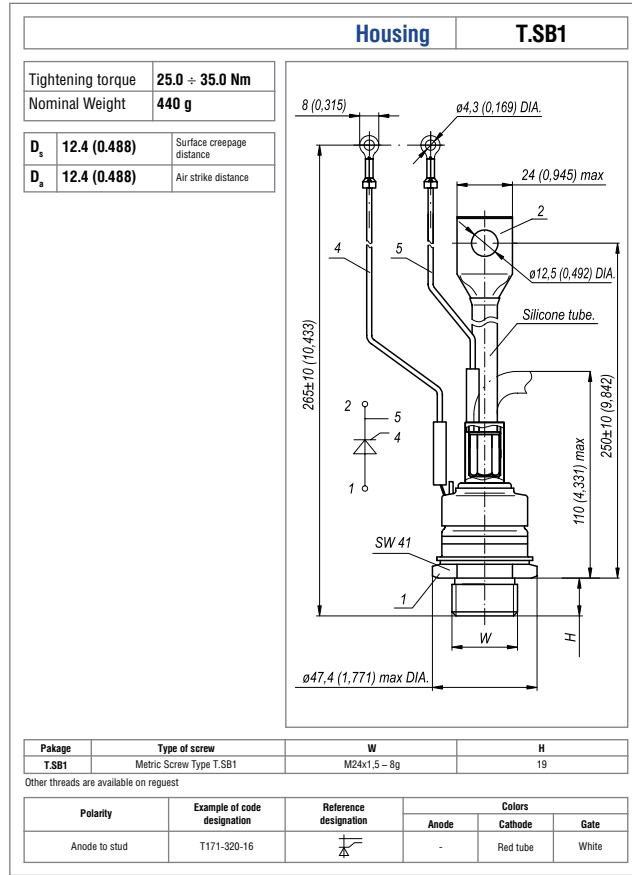
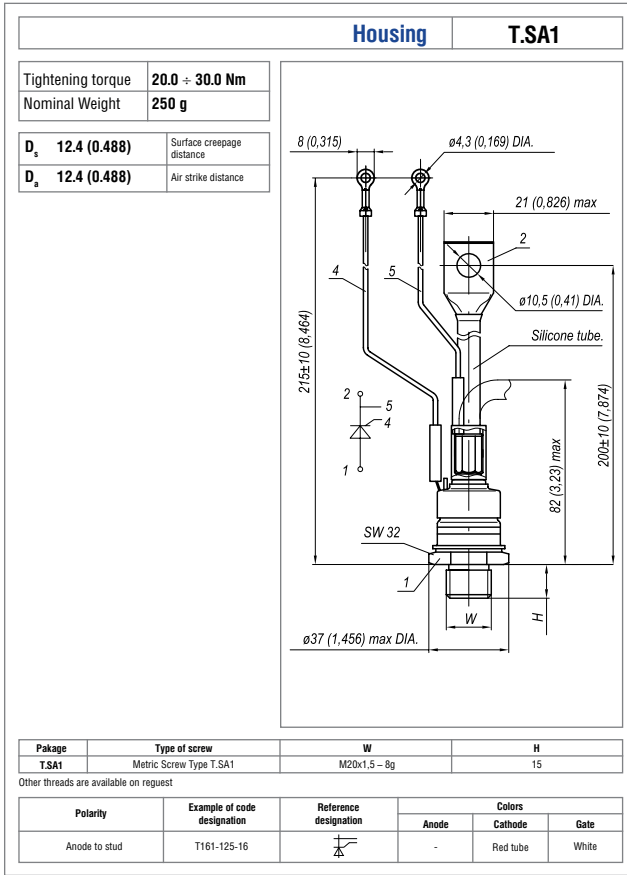
1. D — Rectifier diode / DF — Fast diode / DA — Avalanche diode
2. Design version
3. Mean forward current, A
4. Polarity: X - Cathode to Stud; Anode to Stud - no symbol
5. Voltage code

Phase Control Thyristors

| Part Number | Ø of the element | V_{RRM}^{DRM} | I_{TAV} | T_C | V_{TM} | I_{TM} | $V_{Tjmax}^{T(TO)}$ | r_T | t_q | T_{jmax} | R_{thjc} | Package | Recommended Heatsinks |
|-----------------|------------------|-----------------|-----------|-------|----------|----------|---------------------|-------|-------|------------|------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [μs] | [°C] | [°C/W] | | |
| up to 800 V | | | | | | | | | | | | | |
| T175-250 | 32 | 100÷800 | 250 | 125 | 1,50 | 785 | 0,95 | 0,760 | 125 | 150 | 0,0700 | T.SB3 | - |
| T271-250 | 32 | 100÷800 | 250 | 121 | 1,50 | 785 | 0,95 | 0,760 | 125 | 150 | 0,0800 | T.SB1 | 0181, 0281 |
| T371-250 | 32 | 100÷800 | 250 | 121 | 1,50 | 785 | 0,95 | 0,760 | 125 | 150 | 0,0800 | T.SB2 | 0181, 0281 |
| T175-320 | 32 | 100÷800 | 320 | 126 | 1,25 | 1005 | 0,80 | 0,340 | 125 | 150 | 0,0700 | T.SB3 | - |
| T271-320 | 32 | 100÷800 | 320 | 122 | 1,25 | 1005 | 0,80 | 0,340 | 125 | 150 | 0,0800 | T.SB1 | 0181, 0281 |
| T371-320 | 32 | 100÷800 | 320 | 122 | 1,25 | 1005 | 0,80 | 0,340 | 125 | 150 | 0,0800 | T.SB2 | 0181, 0281 |
| up to 1800 V | | | | | | | | | | | | | |
| T161-125 | 24 | 100÷1600 | 125 | 103 | 1,75 | 393 | 1,15 | 1,800 | 125 | 125 | 0,1000 | T.SA1 | 0171, 0271, 0371 |
| T161-160 | 24 | 100÷1600 | 160 | 99 | 1,70 | 502 | 1,05 | 1,360 | 125 | 125 | 0,1000 | T.SA1 | 0171, 0271, 0371 |
| T161-200 | 24 | 100÷1600 | 200 | 98 | 1,60 | 628 | 0,90 | 0,850 | 125 | 125 | 0,1000 | T.SA1 | 0171, 0271, 0371 |
| T171-200 | 32 | 100÷1600 | 200 | 100 | 1,75 | 628 | 1,00 | 1,120 | 125 | 125 | 0,0800 | T.SB1 | 0181, 0281 |
| T175-200 | 32 | 100÷1600 | 200 | 103 | 1,75 | 628 | 1,00 | 1,120 | 125 | 125 | 0,0700 | T.SB3 | - |
| T371-200 | 32 | 100÷1600 | 200 | 100 | 1,75 | 628 | 1,00 | 1,120 | 125 | 125 | 0,0800 | T.SB2 | 0181, 0281 |
| T171-250 | 32 | 100÷1600 | 250 | 93 | 1,75 | 785 | 1,00 | 0,950 | 125 | 125 | 0,0800 | T.SB1 | 0181, 0281 |
| T471-250 | 32 | 100÷1600 | 250 | 93 | 1,75 | 785 | 1,00 | 0,950 | 125 | 125 | 0,0800 | T.SB2 | 0181, 0281 |
| T171-320 | 32 | 100÷1600 | 320 | 90 | 1,60 | 1005 | 0,95 | 0,510 | 125 | 125 | 0,0800 | T.SB1 | 0181, 0281 |
| T275-250 | 32 | 100÷1600 | 250 | 97 | 1,75 | 785 | 1,00 | 0,950 | 125 | 125 | 0,0700 | T.SB3 | - |
| T275-320 | 32 | 100÷1600 | 320 | 94 | 1,60 | 1005 | 0,95 | 0,510 | 125 | 125 | 0,0700 | T.SB3 | - |
| T471-320 | 32 | 100÷1600 | 320 | 90 | 1,60 | 1005 | 0,95 | 0,510 | 125 | 125 | 0,0800 | T.SB2 | 0181, 0281 |

Fast Thyristors

| Part Number | Ø of the element | V_{RRM}^{DRM} | I_{TAV} | T_C | V_{TM} | I_{TM} | $V_{Tjmax}^{T(TO)}$ | r_T | t_q | T_{jmax} | R_{thjc} | Package | Recommended Heatsinks |
|-------------------|------------------|-----------------|-----------|-------|----------|----------|---------------------|-------|-------|------------|------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [μs] | [°C] | [°C/W] | | |
| up to 1800 V | | | | | | | | | | | | | |
| TFI261-125 | 24 | 1000÷1400 | 125 | 97 | 2,30 | 393 | 1,45 | 2,500 | 16,0 | 125 | 0,1000 | T.SA1 | 0171, 0271, 0371 |
| TFI261-160 | 24 | 1000÷1400 | 160 | 94 | 1,85 | 502 | 1,20 | 1,800 | 20,0 | 125 | 0,1000 | T.SA1 | 0171, 0271, 0371 |
| TFI271-160 | 32 | 1000÷1400 | 160 | 95 | 2,20 | 502 | 1,65 | 1,700 | 16,0 | 125 | 0,0800 | T.SB1 | 0181, 0281 |
| TFI175-200 | 32 | 1000÷1400 | 200 | 99 | 1,96 | 628 | 1,31 | 1,100 | 20,0 | 125 | 0,0700 | T.SB3 | - |
| TFI271-200 | 32 | 1000÷1400 | 200 | 95 | 1,96 | 628 | 1,31 | 1,100 | 20,0 | 125 | 0,0800 | T.SB1 | 0181, 0281 |
| TFI371-200 | 32 | 1000÷1400 | 200 | 95 | 1,96 | 628 | 1,31 | 1,100 | 20,0 | 125 | 0,0800 | T.SB2 | 0181, 0281 |
| TFI175-250 | 32 | 1000÷1400 | 250 | 97 | 1,70 | 785 | 1,05 | 0,850 | 25,0 | 125 | 0,0700 | T.SB3 | - |
| TFI271-250 | 32 | 1000÷1400 | 250 | 93 | 1,70 | 785 | 1,05 | 0,850 | 25,0 | 125 | 0,0800 | T.SB1 | 0181, 0281 |
| TFI371-250 | 32 | 1000÷1400 | 250 | 93 | 1,70 | 785 | 1,05 | 0,850 | 25,0 | 125 | 0,0800 | T.SB2 | 0181, 0281 |
| TFI271-320 | 32 | 1000÷1400 | 320 | 86 | 1,80 | 1005 | 1,00 | 0,650 | 32,0 | 125 | 0,0800 | T.SB1 | 0181, 0281 |



Rectifier Diodes

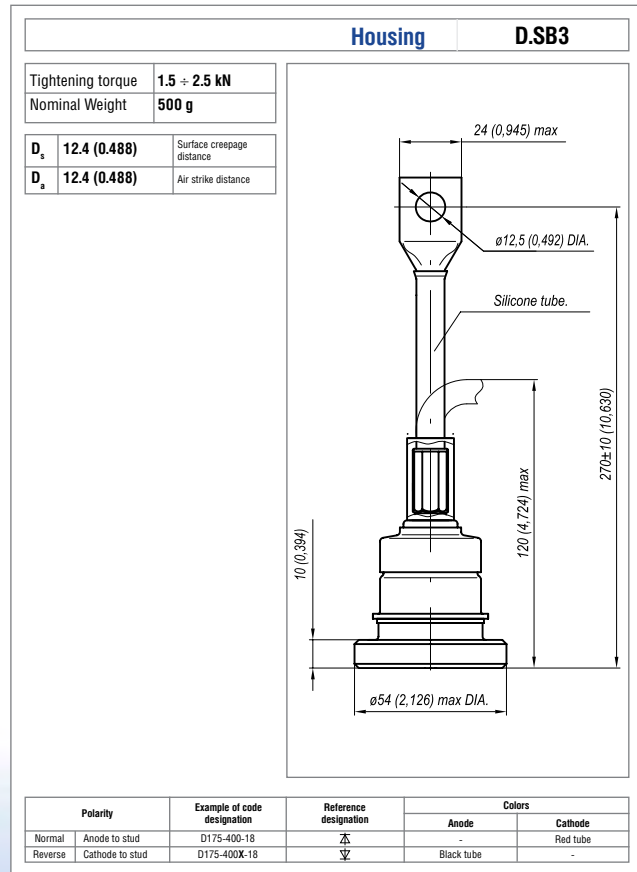
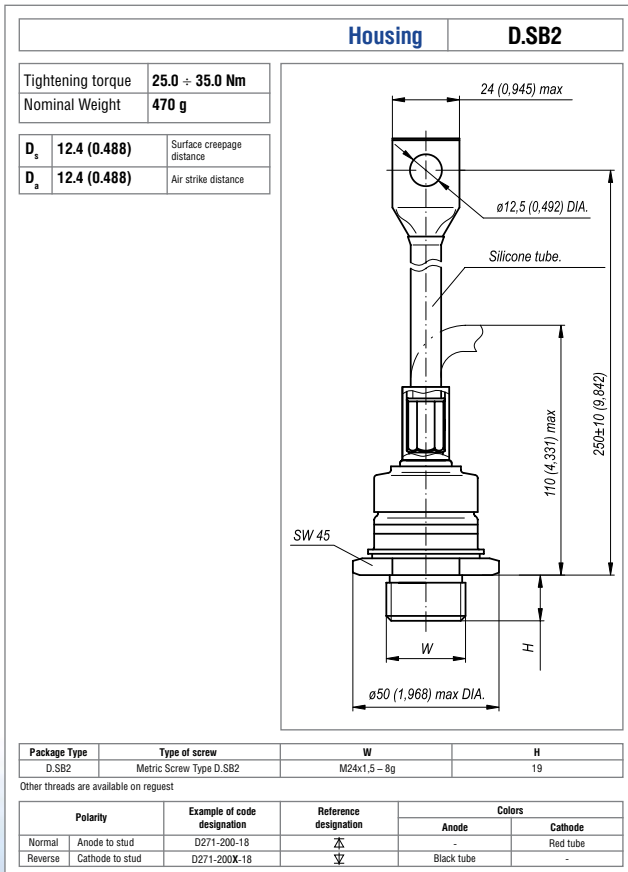
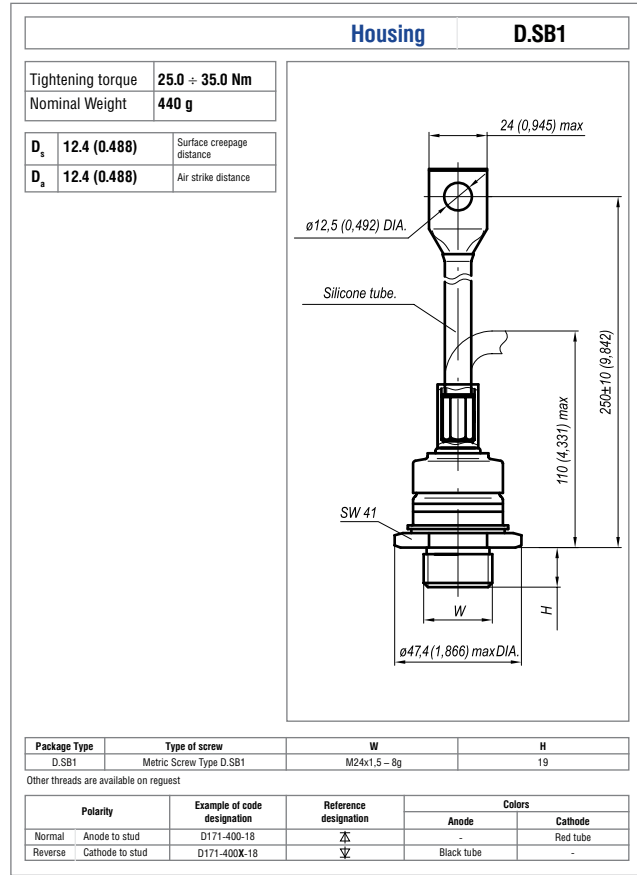
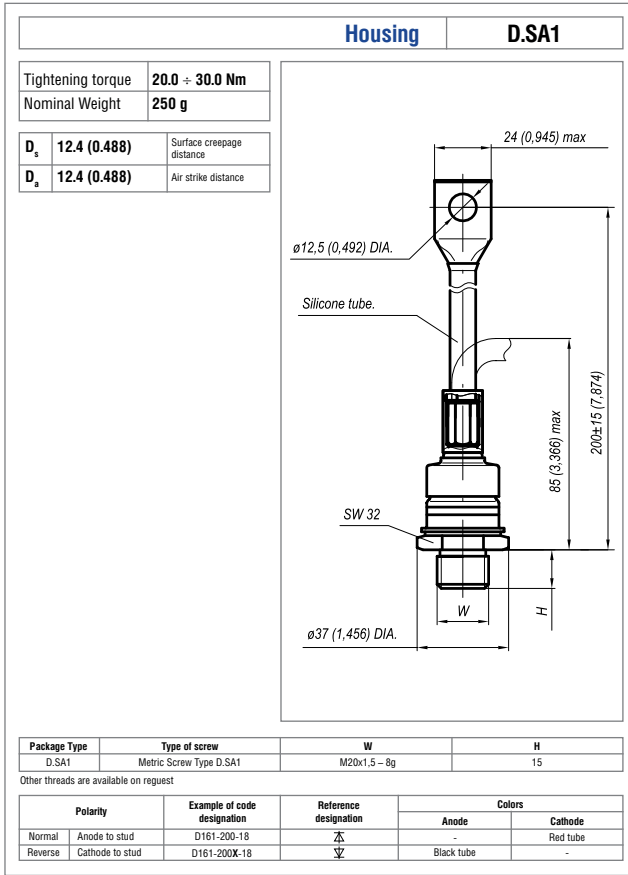
| Part Number | Ø of the element | V_{RRM} | I_{FAV} | T_C | V_{FM} | I_{FM} | $V_{T_j \max}^{F(TO)}$ | r_T | $T_{j \max}$ | R_{thjc} | package | Recommended Heatsinks |
|-----------------|------------------|-----------|-----------|-------|----------|----------|------------------------|-------|--------------|------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [°C] | [°C/W] | | |
| up to 1800 V | | | | | | | | | | | | |
| D161-200 | 24 | 1000±1800 | 200 | 163 | 1,35 | 628 | 0,90 | 0,850 | 190 | 0,1000 | D.SA1 | 0171, 0271, 0371 |
| D161-250 | 24 | 1000±1800 | 250 | 155 | 1,35 | 785 | 0,90 | 0,770 | 190 | 0,1000 | D.SA1 | 0171, 0271, 0371 |
| D161-320 | 24 | 1000±1800 | 320 | 144 | 1,35 | 1005 | 0,90 | 0,650 | 190 | 0,1000 | D.SA1 | 0171, 0271, 0371 |
| D161-400 | 24 | 1000±1800 | 400 | 134 | 1,70 | 1256 | 0,90 | 0,500 | 190 | 0,1000 | D.SA1 | 0171, 0271, 0371 |
| D171-400 | 32 | 1000±1800 | 400 | 143 | 1,45 | 1256 | 0,90 | 0,560 | 190 | 0,0800 | D.SB1 | 0181, 0281 |
| D175-400 | 32 | 1000±1800 | 400 | 149 | 1,60 | 1256 | 0,90 | 0,560 | 190 | 0,0700 | D.SB3 | – |
| D271-400 | 32 | 1000±1800 | 400 | 143 | 1,45 | 1256 | 0,90 | 0,560 | 190 | 0,0800 | D.SB2 | 0181, 0281 |
| D171-500 | 32 | 1000±1200 | 500 | 133 | 1,40 | 1570 | 0,80 | 0,500 | 190 | 0,0800 | D.SB1 | 0181, 0281 |
| D175-500 | 32 | 1000±1200 | 500 | 140 | 1,40 | 1570 | 0,80 | 0,500 | 190 | 0,0700 | D.SB3 | – |
| D271-500 | 32 | 1000±1200 | 500 | 133 | 1,40 | 1570 | 0,80 | 0,500 | 190 | 0,0800 | D.SB2 | 0181, 0281 |

Fast Diodes

| Part Number | Ø of the element | V_{RRM} | I_{FAV} | T_C | V_{FM} | I_{FM} | $V_{T_j \max}^{F(TO)}$ | r_T | t_{rr} | $T_{j \max}$ | R_{thjc} | package | Recommended Heatsinks |
|------------------|------------------|-----------|-----------|-------|----------|----------|------------------------|-------|----------|--------------|------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [μs] | [°C] | [°C/W] | | |
| up to 1800 V | | | | | | | | | | | | | |
| DF261-250 | 24 | 1000±1600 | 250 | 101 | 2,20 | 785 | 1,25 | 1,100 | 2,5 | 150 | 0,1000 | D.SA1 | 0171, 0271, 0371 |
| DF261-320 | 24 | 1000±1400 | 320 | 90 | 1,70 | 1005 | 1,20 | 0,850 | 3,2 | 150 | 0,1000 | D.SA1 | 0171, 0271, 0371 |
| DF271-400 | 32 | 1000±1400 | 400 | 85 | 2,30 | 1256 | 1,20 | 0,800 | 3,2 | 150 | 0,0800 | D.SB1 | 0181, 0281 |

Avalanche Diodes

| Part Number | Ø of the element | V_{RRM} | I_{FAV} | T_C | V_{FM} | I_{FM} | $V_{T_j \max}^{F(TO)}$ | r_T | $T_{j \max}$ | R_{thjc} | package | Recommended Heatsinks |
|------------------|------------------|-----------|-----------|-------|----------|----------|------------------------|-------|--------------|------------|---------|-----------------------|
| | | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [°C] | [°C/W] | | |
| up to 1800 V | | | | | | | | | | | | |
| DA161-200 | 24 | 1000±1800 | 200 | 123 | 1,40 | 628 | 0,80 | 1,050 | 150 | 0,1000 | D.SA1 | 0171, 0271, 0371 |
| DA171-320 | 32 | 1000±1800 | 320 | 120 | 1,40 | 1005 | 0,80 | 0,440 | 150 | 0,0800 | D.SB1 | 0181, 0281 |



Thyristor Modules Overview

| | | | | | |
|---|---------------|---------------|--------------------------------|---------------|--------------|
| 6500 | | | MTx-240-65-A2 | | |
| 4400 | | | MTx-260-44-A2 | MTx-400-44-D | |
| 3600 | MTx-115-36-F | MTx-160-36-C1 | MTx-320-36-A2 | MT1-560-36-E | MTx-500-36-D |
| 2800 | MTx-130-28-F | MTx-200-28-C1 | MTx-400-28-A2 | MT1-635-28-E | MTx-630-28-D |
| 2400 | MTx-250-24-C1 | | MTx-430-24-A2 | | |
| 2200 | MTx-165-22-F | | | MT1-765-22-E | MTx-740-22-D |
| 1800 | MTx-201-18-F | MTx-320-18-C1 | MTx-540-18-A2 MT3-595-18-A2 | MT1-830-18-E | MTx-800-18-D |
| 1200 | | | MTx-650-12-A2 | MTx-1000-12-D | |
| 800 | | | | | MTx-1250-8-D |
| Blocking voltage[V] baseplate width [mm] | 34 | 50 | 60 | 70 | 77 |

Diode Modules Overview

| | | | | | |
|---|--------------|---------------|---------------|---------------|---------------|
| 6500 | | | MDx-320-65-A2 | | |
| 5200 | | | MDx-380-52-A2 | | |
| 4400 | | | MDx-470-44-A2 | MD1-950-44-E | MDx-800-44-D |
| 3600 | MDx-155-36-F | MDx-250-36-C1 | MDx-515-36-A2 | | |
| 3400 | | | | | |
| 2800 | MDx-175-28-F | MDx-320-28-C1 | | MD1-1125-28-E | MDx-1000-28-D |
| 2600 | | | MDx-580-26-A2 | | |
| 2200 | MDx-215-22-F | | | MD1-1280-22-E | |
| 1800 | MDx-245-18-F | MDx-400-18-C1 | MDx-660-18-A2 | | |
| Blocking voltage[V] baseplate width [mm] | 34 | 50 | 60 | 70 | 77 |

Part numbering guide

| | | | | | | | | | |
|-----------|----------|---|------------|---|-----------|---|----------|---|----------|
| MT | 3 | - | 540 | - | 18 | - | A | - | N |
| 1 | 2 | | 3 | | 4 | | 5 | | 6 |

1. Types of module: MT: Thyristor module; MT/D: Thyristor-Diode module; MD/T: Diode-Thyristor module
2. Circuit schematic (x):
3 - serial connection; 4 - common Cathode; 5 - common Anode
3. Mean on-state current, A
4. Voltage code
5. Package type
6. Ambient conditions: N - Normal

| | | | | | | | | | |
|-----------|----------|---|------------|---|-----------|---|----------|---|----------|
| MD | 3 | - | 660 | - | 18 | - | A | - | N |
| 1 | 2 | | 3 | | 4 | | 5 | | 6 |

1. MD- Diode module
2. Circuit schematic (x):
3 - serial connection; 4 - common Cathode; 5 - common Anode
3. Mean forward current, A
4. Voltage code
5. Package type
6. Ambient conditions: N - Normal



Single Component Thyristor Modules

| Part Number | V_{DRM} V_{RRM} | I_{TAV} | T_c | V_{TM} | I_{TM} | $V_{T(TO)}$ T_{jmax} | r_T | t_q | T_{jmax} | R_{thjc} | Package | Baseplate width/length |
|---------------------|------------------------|-----------|-------|----------|----------|---------------------------|-------|-------|------------|------------|---------|------------------------|
| | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [μs] | [°C] | [°C/W] | | [mm] |
| up to 1800 V | | | | | | | | | | | | |
| MT1-830-18-E | 1000÷1800 | 830 | 85 | 1,45 | 2500 | 0,80 | 0,240 | 250 | 130 | 0,0420 | M.E1 | 70/104 |
| up to 2400 V | | | | | | | | | | | | |
| MT1-765-24-E | 2000÷2400 | 765 | 81 | 1,50 | 2500 | 0,85 | 0,277 | 320 | 125 | 0,0420 | M.E1 | 70/104 |
| up to 2800 V | | | | | | | | | | | | |
| MT1-635-28-E | 2600÷2800 | 635 | 85 | 1,55 | 2500 | 0,95 | 0,350 | 320 | 125 | 0,0420 | M.E1 | 70/104 |
| up to 3600 V | | | | | | | | | | | | |
| MT1-560-36-E | 3000÷3600 | 560 | 85 | 2,10 | 2500 | 1,05 | 0,470 | 400 | 125 | 0,0420 | M.E1 | 70/104 |

Dual Component Thyristor Modules

| Part Number | V_{DRM} V_{RRM} | I_{TAV} | T_c | V_{TM} | I_{TM} | $V_{T(TO)}$ T_{jmax} | r_T | t_q | T_{jmax} | R_{thjc} | Package | Baseplate width/length |
|--|------------------------|-----------|-------|----------|----------|---------------------------|-------|-------|------------|------------|---------|------------------------|
| | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [μs] | [°C] | [°C/W] | | [mm] |
| up to 800 V | | | | | | | | | | | | |
| MTx-1250-8-D | 100÷800 | 1250 | 77 | 1,20 | 3925 | 0,80 | 0,120 | 160 | 150 | 0,0500 | M.D | 77/150 |
| MT/Dx-1250-8-D | | | | | | | | | | | | |
| MD/Tx-1250-8-D | | | | | | | | | | | | |
| up to 1200 V | | | | | | | | | | | | |
| MTx-650-12-A2 | 1000÷1200 | 650 | 85 | 1,40 | 1978 | 0,85 | 0,280 | 160 | 140 | 0,0650 | M.A2 | 60/124 |
| MT/Dx-650-12-A2 | | | | | | | | | | | | |
| MD/Tx-650-12-A2 | | | | | | | | | | | | |
| MTx-1000-12-D | 1000÷1200 | 1000 | 77 | 1,25 | 3140 | 0,90 | 0,150 | 200 | 140 | 0,0500 | M.D | 77/150 |
| MT/Dx-1000-12-D | | | | | | | | | | | | |
| MD/Tx-1000-12-D | | | | | | | | | | | | |
| up to 1800 V | | | | | | | | | | | | |
| MTx-201-18-F | 1000÷1800 | 201 | 85 | 1,40 | 500 | 0,80 | 0,970 | 125 | 130 | 0,1800 | M.F1 | 34/94 |
| MT/Dx-201-18-F | | | | | | | | | | | | |
| MD/Tx-201-18-F | | | | | | | | | | | | |
| MTx-320-18-C1 <small>NEW!</small> | 1000÷1800 | 320 | 86 | 1,40 | 785 | 0,75 | 0,500 | 160 | 130 | 0,0600 | M.C1 | 50/115 |
| MT/Dx-320-18-C1 | | | | | | | | | | | | |
| MD/Tx-320-18-C1 | | | | | | | | | | | | |
| MTx-540-18-A2 | 1400÷1800 | 540 | 85 | 1,50 | 1570 | 0,85 | 0,320 | 250 | 130 | 0,0650 | M.A2 | 60/124 |
| MT/Dx-540-18-A2 | | | | | | | | | | | | |
| MD/Tx-540-18-A2 | | | | | | | | | | | | |
| MT3-595-18-A2 | 1400÷1800 | 595 | 85 | 1,50 | 1570 | 0,84 | 0,310 | 320 | 135 | 0,0650 | M.A2 | 60/124 |
| MT/D3-595-18-A2 | | | | | | | | | | | | |
| MD/T3-595-18-A2 | | | | | | | | | | | | |
| MTx-800-18-D | 1400÷1800 | 800 | 78 | 1,45 | 2512 | 0,85 | 0,230 | 250 | 130 | 0,0500 | M.D | 77/150 |
| MT/Dx-800-18-D | | | | | | | | | | | | |
| MD/Tx-800-18-D | | | | | | | | | | | | |
| up to 2400 V | | | | | | | | | | | | |
| MTx-165-22-F | 2000÷2200 | 165 | 85 | 1,50 | 500 | 0,80 | 1,350 | 125 | 125 | 0,1800 | M.F1 | 34/94 |
| MT/Dx-165-22-F | | | | | | | | | | | | |
| MD/Tx-165-22-F | | | | | | | | | | | | |
| MTx-250-24-C1 <small>NEW!</small> | 2000÷2400 | 250 | 85 | 1,50 | 785 | 0,80 | 0,700 | 200 | 125 | 0,0650 | M.C1 | 50/115 |
| MT/Dx-250-24-C1 | | | | | | | | | | | | |
| MD/Tx-250-24-C1 | | | | | | | | | | | | |
| MTx-430-24-A2 | 2000÷2400 | 430 | 85 | 1,55 | 1256 | 1,00 | 0,410 | 250 | 125 | 0,0650 | M.A2 | 60/124 |
| MT/Dx-430-24-A2 | | | | | | | | | | | | |
| MD/Tx-430-24-A2 | | | | | | | | | | | | |
| MTx-740-24-D | 2000÷2400 | 740 | 77 | 1,55 | 3140 | 0,90 | 0,210 | 320 | 125 | 0,0500 | M.D | 77/150 |
| MT/Dx-740-24-D | | | | | | | | | | | | |
| MD/Tx-740-24-D | | | | | | | | | | | | |

| Part Number | V_{DRM} V_{RRM} | I_{TAV} | T_C | V_{TM} | I_{TM} | $V_{T(TO)}$ T_{jmax} | r_T | t_q | T_{jmax} | R_{thjc} | Package | Baseplate width/length [mm] |
|--|------------------------|-----------|-------|----------|----------|---------------------------|-------|-------|------------|------------|---------|-----------------------------|
| | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [μs] | [°C] | [°C/W] | | |
| up to 2800 V | | | | | | | | | | | | |
| MTx-130-28-F | 2400÷2800 | 130 | 85 | 1,80 | 500 | 0,85 | 2,400 | 160 | 125 | 0,1900 | M.F1 | 34/94 |
| MT/Dx-130-28-F | | | | | | | | | | | | |
| MD/Tx-130-28-F | | | | | | | | | | | | |
| MTx-200-28-C1 <small>NEW!</small> | 2600÷2800 | 200 | 87 | 2,00 | 785 | 0,90 | 1,100 | 200 | 125 | 0,0650 | M.C1 | 50/115 |
| MT/Dx-200-28-C1 | | | | | | | | | | | | |
| MD/Tx-200-28-C1 | | | | | | | | | | | | |
| MTx-400-28-A2 <small>NEW!</small> | 2600÷2800 | 400 | 82 | 1,80 | 1256 | 1,00 | 0,650 | 250 | 125 | 0,0325 | M.A2 | 60/124 |
| MT/Dx-400-28-A2 | | | | | | | | | | | | |
| MD/Tx-400-28-A2 | | | | | | | | | | | | |
| MTx-630-28-D | 2600÷2800 | 630 | 80 | 1,40 | 1978 | 0,95 | 0,300 | 320 | 125 | 0,0500 | M.D | 77/150 |
| MT/Dx-630-28-D | | | | | | | | | | | | |
| MD/Tx-630-28-D | | | | | | | | | | | | |
| MT1-635-28-E | 2600÷2800 | 635 | 85 | 1,55 | 2500 | 0,95 | 0,350 | 320 | 125 | 0,0420 | M.E1 | 70/104 |
| up to 3600 V | | | | | | | | | | | | |
| MTx-115-36-F | 3000÷3600 | 115 | 85 | 2,45 | 500 | 0,95 | 3,000 | 200 | 125 | 0,1900 | M.F1 | 34/94 |
| MT/Dx-115-36-F | | | | | | | | | | | | |
| MD/Tx-115-36-F | | | | | | | | | | | | |
| MTx-160-36-C1 <small>NEW!</small> | 3000÷3600 | 160 | 81 | 2,50 | 785 | 1,20 | 2,300 | 300 | 125 | 0,0650 | M.C1 | 50/115 |
| MT/Dx-160-36-C1 | | | | | | | | | | | | |
| MD/Tx-160-36-C1 | | | | | | | | | | | | |
| MTx-320-36-A2 | 3000÷3600 | 320 | 85 | 2,20 | 785 | 1,15 | 0,800 | 320 | 125 | 0,0680 | M.A2 | 60/124 |
| MT/Dx-320-36-A2 | | | | | | | | | | | | |
| MD/Tx-320-36-A2 | | | | | | | | | | | | |
| MTx-500-36-D | 3000÷3600 | 500 | 85 | 1,85 | 1570 | 1,10 | 0,400 | 400 | 125 | 0,0500 | M.D | 77/150 |
| MT/Dx-500-36-D | | | | | | | | | | | | |
| MD/Tx-500-36-D | | | | | | | | | | | | |
| MT1-560-36-E | 3000÷3600 | 560 | 85 | 2,10 | 2500 | 1,05 | 0,470 | 400 | 125 | 0,0420 | M.E1 | 70/104 |
| up to 4400 V | | | | | | | | | | | | |
| MTx-260-44-A2 | 3800÷4400 | 260 | 85 | 2,30 | 628 | 1,40 | 1,300 | 500 | 125 | 0,0680 | M.A2 | 60/124 |
| MT/Dx-260-44-A2 | | | | | | | | | | | | |
| MD/Tx-260-44-A2 | | | | | | | | | | | | |
| MTx-400-44-D | 3800÷4400 | 400 | 88 | 2,70 | 2512 | 1,20 | 0,650 | 500 | 125 | 0,0500 | M.D | 77/150 |
| MT/Dx-400-44-D | | | | | | | | | | | | |
| MD/Tx-400-44-D | | | | | | | | | | | | |
| up to 6500 V | | | | | | | | | | | | |
| MTx-240-65-A2 | 4600÷6500 | 240 | 85 | 2,80 | 785 | 1,10 | 2,500 | 630 | 125 | 0,0680 | M.A2 | 60/124 |
| MT/Dx-240-65-A2 | | | | | | | | | | | | |
| MD/Tx-240-65-A2 | | | | | | | | | | | | |



Single Component Diode Modules

| Part Number | V_{RRM} | I_{FAV} | T_C | V_{FM} | I_{FM} | $\frac{V_{F(TO)}}{T_{jmax}}$ | r_T | T_{jmax} | R_{thjc} | Package | Baseplate width/length [mm] |
|---------------|-----------|-----------|-------|----------|----------|------------------------------|-------|------------|------------|---------|-----------------------------|
| | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [°C] | [°C/W] | | |
| up to 2800 V | | | | | | | | | | | |
| MD1-1125-28-E | 2400÷2800 | 1125 | 100 | 1,38 | 3140 | 0,80 | 0,170 | 160 | 0,0420 | M.E1 | 70/104 |
| MD1-1280-22-E | 2000÷2200 | 1280 | 100 | 1,25 | 3140 | 0,80 | 0,100 | 160 | 0,0420 | M.E1 | 70/104 |
| up to 4400 V | | | | | | | | | | | |
| MD1-950-44-E | 3800÷4400 | 950 | 100 | 1,77 | 2512 | 0,85 | 0,280 | 160 | 0,0420 | M.E1 | 70/104 |

Dual Component Diode Modules

| Part Number | V_{RRM} | I_{FAV} | T_C | V_{FM} | I_{FM} | $\frac{V_{F(TO)}}{T_{jmax}}$ | r_T | T_{jmax} | R_{thjc} | Package | Baseplate width/length [mm] |
|-----------------------------------|-----------|-----------|-------|----------|----------|------------------------------|-------|------------|------------|---------|-----------------------------|
| | [V] | [A] | [°C] | [V] | [A] | [V] | [mΩ] | [°C] | [°C/W] | | |
| up to 1800 V | | | | | | | | | | | |
| MDx-245-18-F | 1000÷1800 | 245 | 100 | 1,30 | 500 | 0,75 | 0,640 | 150 | 0,1800 | M.F1 | 34/94 |
| MDx-400-18-C1 <small>NEW!</small> | 1000÷1800 | 400 | 102 | 1,20 | 785 | 0,75 | 0,250 | 150 | 0,0600 | M.C1 | 50/115 |
| MDx-660-18-A2 | 1000÷1800 | 660 | 100 | 1,40 | 1978 | 0,78 | 0,230 | 150 | 0,0650 | M.A2 | 60/124 |
| up to 2800 V | | | | | | | | | | | |
| MDx-215-22-F | 2000÷2200 | 215 | 100 | 1,40 | 500 | 0,80 | 0,920 | 150 | 0,1800 | M.F1 | 34/94 |
| MDx-175-28-F | 2400÷2800 | 175 | 100 | 1,50 | 500 | 0,85 | 1,500 | 150 | 0,1900 | M.F1 | 34/94 |
| MDx-320-28-C1 <small>NEW!</small> | 2000÷2800 | 320 | 100 | 1,40 | 785 | 0,85 | 0,450 | 150 | 0,0650 | M.C1 | 50/115 |
| MDx-580-26-A2 | 2000÷2600 | 580 | 100 | 1,50 | 1570 | 0,80 | 0,350 | 150 | 0,0650 | M.A2 | 60/124 |
| MDx-1000-28-D | 2000÷2800 | 1000 | 91 | 1,38 | 3140 | 0,80 | 0,150 | 150 | 0,0500 | M.D | 77/150 |
| up to 3600 V | | | | | | | | | | | |
| MDx-155-36-F | 3000÷3600 | 155 | 100 | 2,00 | 500 | 0,93 | 2,000 | 150 | 0,1900 | M.F1 | 34/94 |
| MDx-250-36-C1 <small>NEW!</small> | 3000÷3600 | 250 | 90 | 2,00 | 785 | 0,90 | 1,570 | 150 | 0,0650 | M.C1 | 50/115 |
| MDx-515-36-A2 | 3000÷3600 | 515 | 100 | 1,60 | 1256 | 0,80 | 0,500 | 150 | 0,0680 | M.A2 | 60/124 |
| up to 4400 V | | | | | | | | | | | |
| MDx-470-44-A2 | 3800÷4400 | 470 | 100 | 1,70 | 1256 | 0,85 | 0,600 | 150 | 0,0680 | M.A2 | 60/124 |
| MDx-800-44-D | 3800÷4400 | 800 | 85 | 1,77 | 2512 | 0,90 | 0,370 | 150 | 0,0500 | M.D | 77/150 |
| up to 6500 V | | | | | | | | | | | |
| MDx-380-52-A2 | 4600÷5200 | 380 | 100 | 2,20 | 1570 | 0,80 | 0,800 | 140 | 0,0680 | M.A2 | 60/124 |
| MDx-320-65-A2 | 5400÷6500 | 320 | 100 | 2,40 | 1570 | 0,95 | 1,100 | 140 | 0,0680 | M.A2 | 60/124 |

