# Fast asymmetric thyristor modules

| Type | $V_{DRM}$ $V_{DSM} = V_{DRM}$ | $V_{RRM}$ ($V_{RRM(C)}$) $t_p = 1\ \mu s$ | $I_{TRMSM}$ | $I_{TSM}$ 10 ms, $t_{vj\ max}$ | $\int i^2dt$ 10 ms, $t_{vj\ max}$ | $I_{TAVM}/t_C$ 180 °el sin. | $V_{(TO)}$ $t_{vj} = t_{vj\ max}$ | $r_T$ $t_{vj} = t_{vj\ max}$ | $(di/dt)_{cr}$ DIN IEC 747-6 | $t_q$ [1] | $(dv/dt)_{cr}$ DIN IEC 747-6 | $R_{thJC}$ 180 °el sin. | $R_{thCK}$ | $t_{vj\ max}$ | Outline |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | V | V | A | A | $A^2s$ | A/°C | V | mΩ | A/µs | µs | V/µs | °C/W | °C/W | °C | |
| **Modules with compression bonding** | | | | | | | | | | | | | | | |
| AD 50 F | 800 1000 1100 1200 1300* | 15 (50) | 120 | 1300 | 8450 | 76/56 50/85 | 1,3 | 3,75 | 120 | E ≤ 20 D ≤ 15 C ≤ 12 B ≤ 10 A ≤ 8 [2] | C = 500 F = 1000 | 0,45 | 0,16 | 125 | 49 |
| AD 60 F | 800 1000 1100 1200 1300* | 15 (50) | 150 | 1450 | 10500 | 95/56 60/85 | 1,2 | 2,80 | 120 | E ≤ 20 D ≤ 15 C ≤ 12 B ≤ 10 A ≤ 8 [2] | C = 500 F = 1000 | 0,39 | 0,16 | 125 | 49 |
| AD 96 S | 800 1000 1100 1200 1300* | 15 (50) | 200 | 2350 | 27600 | 127/67 95/85 | 1,3 | 2,15 | 400 | D ≤ 15 C ≤ 12 B ≤ 10 A ≤ 8 [2] | C = 500 F = 1000 | 0,23 | 0,06 | 125 | 53 |
| AD 116 S | 800 1000 1100 1200 1300* | 15 (50) | 220 | 2600 | 33800 | 140/74 115/85 | 1,1 | 1,45 | 400 | E ≤ 20 D ≤ 15 | C = 500 F = 1000 | 0,23 | 0,06 | 125 | 53 |
| AD 180 S | 800 1000 1100 1200 1300* | 15 (50) | 350 | 4800 | 115000 | 223/73 180/85 | 1,3 | 0,9 | 500 | D ≤ 15 C ≤ 12 B ≤ 10 A ≤ 8 [2] | C = 500 F = 1000 | 0,13 | 0,04 | 125 | 54 |
| AD 220 S | 800 1000 1100 1200 1300* | 15 (50) | 410 | 5200 | 135000 | 261/75 220/85 | 1,1 | 0,6 | 500 | F ≤ 25 E ≤ 20 D ≤ 15 | C = 500 F = 1000 | 0,13 | 0,04 | 125 | 54 |

1) With fast inverse diode
2) $V_{DRM} \leq 1000$ V

Most types of the power module have been **UL**-recognized.
* Delivery for large quantities on request