

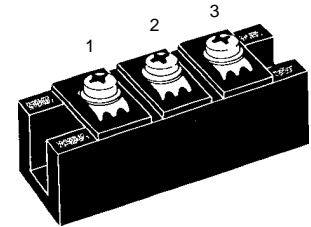
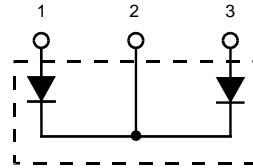
HiPerFRED™

Epitaxial Diode

dual diode, common cathode

MEK 600-04 DA
 $V_{RRM} = 400 \text{ V}$
 $I_{FAVM} = 880 \text{ A}$
 $t_{rr} = 220 \text{ ns}$

| V_{RSM} | V_{RRM} | Type |
|-----------|-----------|--------------|
| V | V | |
| 400 | 400 | MEK 600-04DA |



| Symbol | Conditions | Maximum Ratings | |
|------------|---|----------------------------------|------------------------|
| I_{FAVM} | $T_C = 25^\circ\text{C}$; rectangular, $d = 0.5$ | 880 | A |
| I_{FAVM} | $T_C = 80^\circ\text{C}$; rectangular, $d = 0.5$ | 575 | A |
| I_{FSM} | $T_{VJ} = 25^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine | tbd | A |
| T_{VJ} | | -40...+150 | $^\circ\text{C}$ |
| T_{stg} | | -40...+125 | $^\circ\text{C}$ |
| P_{tot} | $T_C = 25^\circ\text{C}$ | 1100 | W |
| V_{ISOL} | 50/60 Hz, RMS; $I_{ISOL} \leq 1 \text{ mA}$ | 3600 | V~ |
| M_d | Mounting torque with screw M5 Terminal connection torque | 2.25-2.75/20-25 4.5-5.5/40-48 | Nm/lb.in. Nm/lb.in. |
| a | Allowable acceleration | 50 | m/s^2 |

Features

- HiPerFRED™ diode chips
 - fast reverse recovery
 - low operating forward voltage
 - low leakage current
 - avalanche capability
- Industry Standard package
 - with isolated DCB ceramic base plate
 - UL registered E72873

Applications

- Topologies
 - dual diode with common cathode
 - high current single diode with pins 1 and 3 paralleled
- Circuits
 - free wheeling diode of choppers, H-bridges, phaselegs etc.
 - secondary rectifier for switched mode power supplies, welders etc.

| Symbol | Conditions | Characteristic Values | | |
|---------------|---|-----------------------|------|----------------|
| | | min. | typ. | max. |
| I_R | $T_{VJ} = 25^\circ\text{C}$ $V_R = V_{RRM}$ $T_{VJ} = 125^\circ\text{C}$ $V_R = V_{RRM}$ | | 6 | 6 mA mA |
| V_F | $I_F = 400 \text{ A}$; $T_{VJ} = 125^\circ\text{C}$ $T_{VJ} = 25^\circ\text{C}$ | | | 1.1 V 1.4 V |
| t_{rr} | $V_R = 100 \text{ V}$; $-di_F/dt = 900 \text{ A}/\mu\text{s}$ | | 220 | ns |
| I_{RM} | $I_F = 400 \text{ A}$; $T_{VJ} = 125^\circ\text{C}$ | | 80 | A |
| R_{thJS} | | | 0.11 | K/W |
| R_{thJC} | | | 0.22 | K/W |
| d_s | Creeping distance on surface | 12.7 | | mm |
| d_A | Strike distance through air | 9.6 | | mm |
| Weight | | | 150 | g |

Data according to IEC 60747

Dimensions in mm (1 mm = 0.0394")

