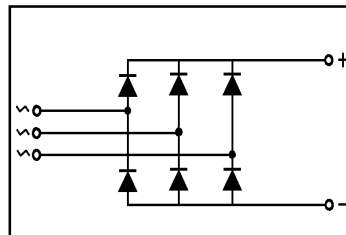


Diode Modules TG-PAK

Features

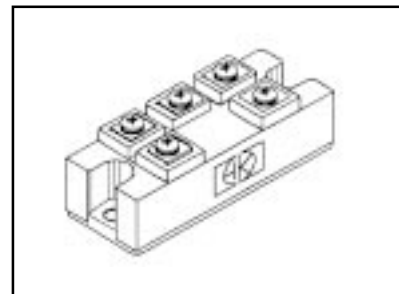
- International standard package
- With DBC ceramic base plate
- Planar passivated chips
- High surge capability
- Complies With RoHS Directive;
- Lead Free;



IDA_{VM} = 55A
V_{RRM} = 800-1600V

Benefits

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Field supply for DC motors
- Battery DC power supplies



Absolute Maximum Ratings

| Symbol | Test Conditions | Max. | Units |
|-------------------|--|-----------------------|------------------|
| V _{RRM} | | 800, 1200, 1400, 1600 | V |
| I _{DAVM} | T _C =100°C, module | 55 | A |
| I _{FSM} | T _{VJ} =45°C; t=10ms (50 Hz),sine | 660 | A |
| | V _R =0 t=8.3ms (60 Hz),sine | 636 | A |
| | T _{VJ} =150°C; t=10ms (50 Hz),sine | 800 | A |
| | V _R =0 t=8.3ms (60 Hz),sine | 840 | A |
| I ² t | T _{VJ} =45°C; t=10ms (50 Hz),sine | 2750 | A ² s |
| | V _R =0 t=8.3ms (60 Hz),sine | 3150 | A ² s |
| | T _{VJ} =150°C; t=10ms (50 Hz),sine | 2520 | A ² s |
| | V _R =0 t=8.3ms (60 Hz),sine | 2750 | A ² s |
| V _{ISOL} | RMS Isolation Voltage, Any Terminal To Case, t=1 min | 3000 | V |
| T _{VJ} | | -40 to +150 | °C |
| T _{VJM} | | 150 | |
| T _{STG} | | -40 to +125 | |

Thermal / Mechanical Characteristics

| | Parameter | Typ. | Max. | Units |
|------------------|---|------|------|-------|
| R _{θJS} | Thermal Resistance, Junction-to- Sink DC | - | 0.5 | |
| R _{θJC} | Thermal Resistance, Junction-to- Case DC | - | 0.4 | °C/W |
| R _{θCS} | Thermal Resistance, Case-to- Sink- Module | 0.1 | - | |
| | Mouting Torque, Case-to-Heatsink | - | 4.0 | N.m |
| | Mouting Torque, Case-to-Terminal 1,2 & 3 | - | 3.0 | |
| | Weight of Module | 180 | - | g |

Electrical Characteristics (unless otherwise specified)

| | Parameter | Min. | Typ. | Max. | Units | Conditions |
|-----------------|----------------------------------|------|------|------|-------|--|
| I _R | Diode Leaking Current | - | - | 0.5 | mA | T _{VJ} =25 °C V _R =V _{RRM} |
| | | - | - | 5 | mA | T _{VJ} =125 °C V _R =V _{RRM} |
| V _F | Diode Forward Voltage | - | - | 1.33 | V | I _F =80A; T _{VJ} =25 °C |
| V _{TO} | For power-loss calculations only | - | - | 0.8 | V | T _{VJ} =125 °C |
| r _T | | - | - | 6.0 | mΩ | |

Voltage Ratings

| Voltage Code | V _{RRM} (V) | V _{RSM} (V) | I _{RRM} (mA) | T _J =25 °C |
|--------------|----------------------|----------------------|-----------------------|-----------------------|
| 080 | 800 | 900 | 1.0 | |
| 120 | 1200 | 1300 | 1.0 | |
| 140 | 1400 | 1500 | 1.0 | |
| 160 | 1600 | 1700 | 1.0 | |

Case Outline - MDS-pak

