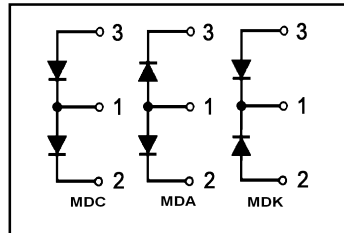


Diode Modules Add -A -PAK

Features

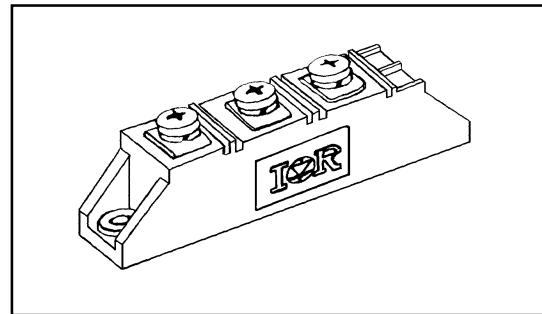
- International standard package
- With DBC ceramic base plate
- Planar passivated chips
- High surge capability
- UL recognition pending



VRRM =1200V- 1800V
IFAVM =2x55A
IFRMS=2x91A

Benefits

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



Absolute Maximum Ratings

| Symbol | Test Conditions | Max. | Units |
|------------------|--|---------------------|------------------|
| VRRM | | 1200,1400,1600,1800 | V |
| IFRMS | TVJM=150 °C | 91 | A |
| IFAVM | Tc=85 °C;180° sine | 55 | A |
| | Tc=100 °C;180° sine | 45 | A |
| IFSM | TVJ=45°C; t=10ms (50 Hz),sine | 1050 | A |
| | VR=0 t=8.3ms (60 Hz),sine | 1150 | A |
| | TVJ=150°C; t=10ms (50 Hz),sine | 900 | A |
| | VR=0 t=8.3ms (60 Hz),sine | 1000 | A |
| I ² t | TVJ=45°C; t=10ms (50 Hz),sine | 4800 | A ² s |
| | VR=0 t=8.3ms (60 Hz),sine | 5300 | A ² s |
| | TVJ=150°C; t=10ms (50 Hz),sine | 3500 | A ² s |
| | VR=0 t=8.3ms (60 Hz),sine | 4000 | A ² s |
| VISOL | RMS Isolation Voltage, Any Terminal To Case, t=1 min | 2500 | V |
| TVJ | | -40 to +150 | °C |
| TVJM | | 150 | |
| TSTG | | -40 to +125 | |

MDC55TA120/180
 MDA55TA120/180
 MDK55TA120/180

Thermal / Mechanical Characteristics

| | Parameter | Typ. | Max. | Units |
|------------------|---|------|-------|-------|
| R _{θJS} | Thermal Resistance, Junction-to- Sink DC | - | 0.435 | |
| R _{θJC} | Thermal Resistance, Junction-to- Case DC | - | 0.335 | °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 | 100 | - | g |

Electrical Characteristics (unless otherwise specified)

| | Parameter | Min. | Typ. | Max. | Units | Conditions |
|-----------------|----------------------------------|------|------|------|-------|--|
| I _R | Diode Leaking Current | - | - | 1 | mA | T _{VJ} =25 °C V _R =V _{R_{RRM}} |
| | | - | - | 10 | mA | T _{VJ} =125 °C V _R =V _{R_{RRM}} |
| V _F | Diode Forward Voltage | - | - | 1.40 | V | I _F =85A; T _{VJ} =25 °C |
| V _{TO} | For power-loss calculations only | - | - | 0.8 | V | T _{VJ} =125 °C |
| r _T | | - | - | 4.9 | mΩ | |
| Q _S | | | | 90 | μC | T _{VJ} =125 °C; I _F =50A, |
| I _{RM} | | | | 11 | A | -di/dt=0.6A/μs |

Voltage Ratings

| Voltage Code | V _{RRM} (V) | V _{RSM} (V) | I _{RRM} T _J =25 °C(mA) |
|--------------|----------------------|----------------------|--|
| 120 | 1200 | 1300 | 1.0 |
| 140 | 1400 | 1500 | 1.0 |
| 160 | 1600 | 1700 | 1.0 |
| 180 | 1800 | 1900 | 1.0 |

Case Outline - a-a-pak

