

MZC/MZA/MZK/MZX500A

**FAST DIODE MODULE**

**Features**

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|  |
| IT(AV) 500AVDRM/VRRM 600~1600 V ITSM 8.3KAI2T 351KA2S |

Isolated mounting base 2500V Compact structure and light weight savings

Full crimping structure, super temperature characteristics and power cycle capability **Application**

AC/DC Motor Control

Various rectifying power suplliers Industry Heating Regulation Light Dimming

Contactless Switches Motor Soft Start Welding Device Converter

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| --- | --- | --- | --- | --- | --- |
| **Symb.** | **parameter** | **Test Conditions** | **TJ(**℃**)** | **Value** | **Unit** |
| **Current Ratings** | IF(AV) | average on-state current | 180°half sine wave 50Hz Single side cooled Tc=60°C | 140 | 400 | A |
| IF(RMS) | RMS on-state current |  | 140 | 628 | A |
| IFSM | Surge on-state current | 10ms half sine wave VR=0.6VRRM | 140 | 8.3 | KA |
| I2t | I2T for fusing coordination | 140 | 351 | KA2S |
| **Characteristics** | VRRM | Repetitive peak reverse voltage | VRRM tp=10msVRSM= VRRM+200V | 140 | 600-1600 | V |
| IRRM | Repetitive peak reverse current | VRM= VRRM | 140 | Max.70 | mA |
| VFO | Threshold voltage |  | 140 | Max.0.85 | V |
| VFM | Peak on-state voltage | IFM=1200A | 25 | Max.1.90 | V |
| rF | On-state slop resistance |  | 140 | Max.0.68 | mΩ |
| trr | Reverse recovery time | IFM=300A,tp=1000μs,-di/dt=20A/μs, VR=50V | 140 | Typ.4.0 | μs |

**Thermal &Mechanical Data**

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| **Symb.** | **parameter** | **Test Conditions** | **Value** | **Unit** |
| Rth(j-c) | Thermal resistance Junction to case | single side cooled | Max.0.130 | ℃/W |
| Rth(c-h) | Thermal resistance case to heat sink | single side cooled | / | ℃/W |
| Fm | Thermal connection torque(M5) |  | Typ.12 | N·m |
| Mounting force (M6) |  | Typ.6 | N·m |
| Tstg | Stored temperature |  | -40-+140 | ℃ |
| Wt | Weight |  | 1820 | g |

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