

FEATURES

- UL recognition, file #E230084
- Glass passivated chip
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for power supply, home appliances, office equipment, industrial automation applications.

MECHANICAL DATA

- **Package:** MT
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MT1504A	MT1506A	MT1508A	MT1510A	MT1512A	MT1514A	MT1516A
Device marking code			MT1504A	MT1506A	MT1508A	MT1510A	MT1512A	MT1514A	MT1516A
Repetitive Peak Reverse Voltage	VRRM	V	400	600	800	1000	1200	1400	1600
Average Rectified Output Current @60Hz sine wave, R-load, With heatsink, $T_c=55^\circ\text{C}$	I_O	A	15						
Surge(Non-repetitive)Forward Current @60Hz Half- sine Wave, 1 cycle, $T_a=25^\circ\text{C}$	I_{FSM}	A	300						
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode	I^2t	A^2S	375						
Storage Temperature	T_{stg}	$^\circ\text{C}$	-55~+150						
Junction Temperature	T_j	$^\circ\text{C}$	-55~+150						
Dielectric Strength, Terminals to case, AC 1 minute	V_{dis}	KV	2.5						
Mounting Torque	TOR	kg·cm	10						

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MT1504A	MT1506A	MT1508A	MT1510A	MT1512A	MT1514A	MT1516A
Maximum instantaneous forward voltage drop per diode	VFM	V	$I_{FM}=7.5\text{A}$	1.2						
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM	μA	$V_{RM}=V_{RRM}$	10						

THERMAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MT1504A	MT1506A	MT1508A	MT1510A	MT1512A	MT1514A	MT1516A
Thermal Resistance Between junction and case, With heatsink	$R_{\theta J-C}$	$^\circ\text{C/W}$	3.2						

■ PACKAGING INFORMATION

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MT1504A~MT1516A	A1	Approximate 17.5	50	50	500	Paper Box

■ CHARACTERISTICS (TYPICAL)

FIG1:Io-Tc Curve

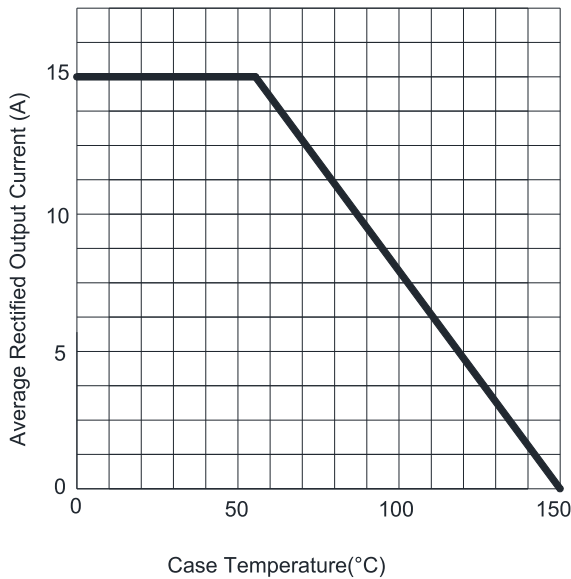


FIG2:Surge Forward Current Capability

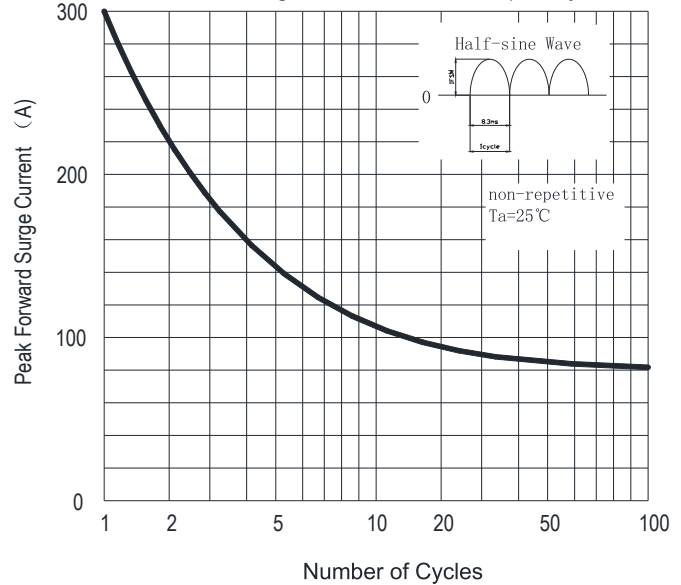


FIG3:Instantaneous Forward Voltage

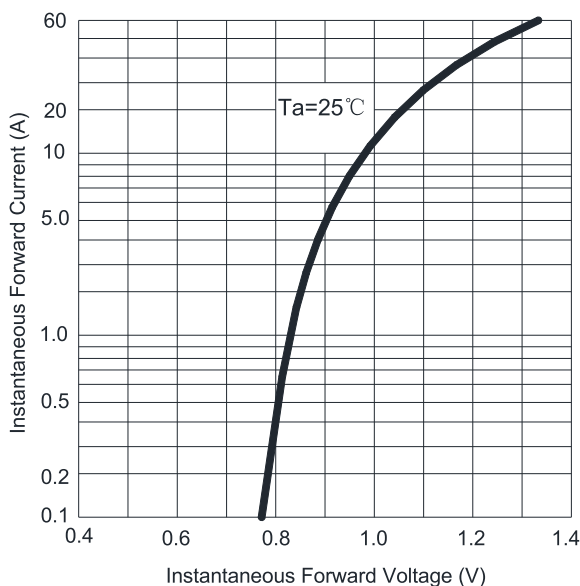
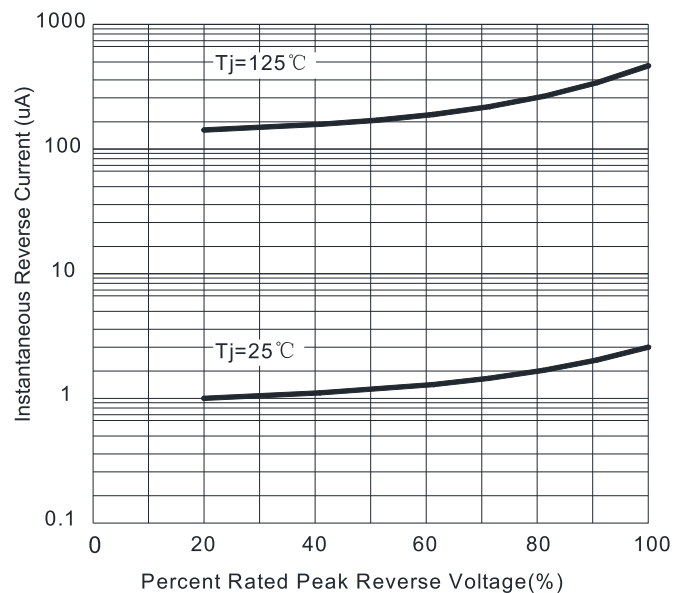
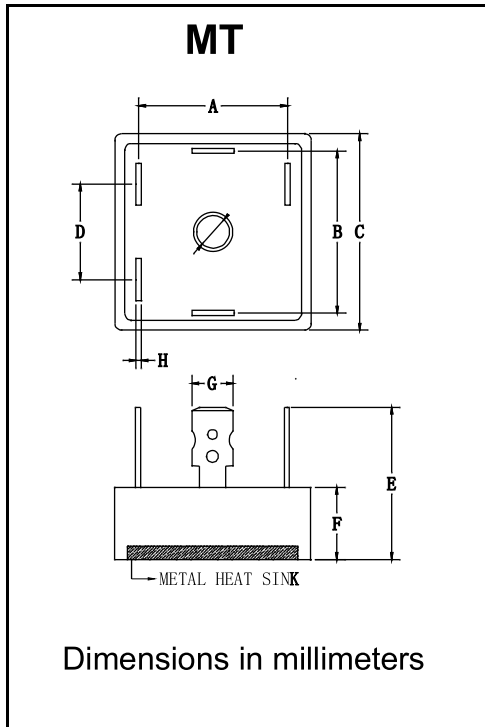


FIG4:Typical Reverse Characteristics



■ **OUTLINE DIMENSIONS**



MT		
Dim	Min	Max
A	23.3	24.3
B	23.3	24.3
C	28.2	28.8
D	15.5	16.5
E	/	25
F	9	10
G	6.2	6.4
H	0.75	0.85