



## GLASS PASSIVATED SINGLE-OHASE BPIDGE RECTIFIER

**MT3508G THRU MT3516G**

**VOLTAGE RANGE**

**1600 Volts**

**CURRENT**

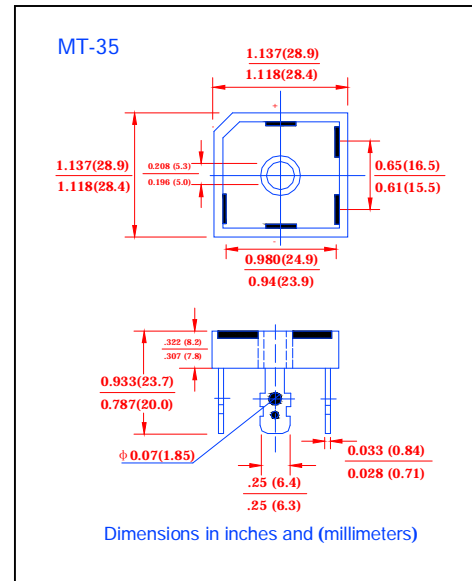
**35 Amperes**

### FEATURES

- Integrally molded heatsink provides very low thermal resistance for maximum heat dissipation
- Glass passivated chip junction
- Surge overload rating to 400 amperes
- High temperature soldering guaranteed:  
260°C/10 seconds, 5 lbs tension

### MECHANICAL DATA

- Case: Epoxy, Molded Plastic with heatsink integrally Mounted in the bridge encapsulation.
- Mounting Position: Bolt down on heatsink with silicone Thermal compound between bridge and mounting Surface for maximum heat transfer efficiency
- Mounting Torque: 20 in, lbs max
- Weight: 0.706 ounce, 20 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	MT3508G	MT3512G	MT3516G	UNIT
Peak Repetitive Reverse Voltage	$V_{RRM}$	800	1200	1600	Volts
Working Peak Reverse Voltage	$V_{RMS}$	800	1200	1600	Volts
Maximum DC Blocking Voltage	$V_{DC}$	800	1200	1600	Volts
Maximum Average Forward Rectified Output Current, at $T_C=55^\circ\text{C}$ (Note 2)	$I_{(AV)}$	35			Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	400			Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	1030			$\text{A}^2\text{s}$
Maximum Instantaneous Forward Voltage drop Per Bridge element 17.5A	$V_F$	1.2			Volts
Maximum DC Reverse Current at rated DC blocking voltage per element $T_A=25^\circ\text{C}$	$I_R$	5.0			$\mu\text{Amps}$
Typical Thermal Resistance per Element	$R_{\theta JC}$	2.0			$^\circ\text{C}/\text{W}$
Isolation Voltage from case to lug	$V_{ISO}$	2500			$V_{AC}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	(-55 to +150)			$^\circ\text{C}$

- Notes:**
1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
  2. Unit mounted on 11.8" x 11.8" x 0.6" thick (300 x 300 x 15mm) Copper plate.



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## RATINGS AND CHARACTERISTICS CURVES MT3508G THRU MT3516G

FIG. 1- TYPICAL FORWARD CURRENT DERATING CURVE

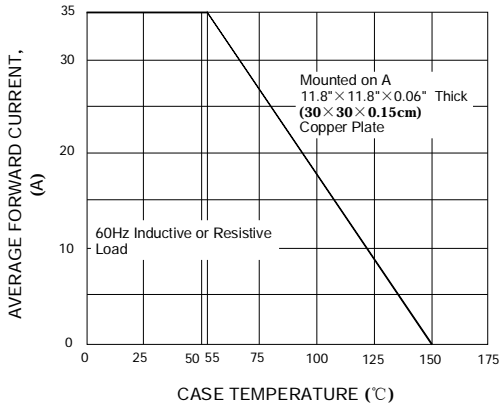


FIG. 2- TYPICAL FORWARD CURRENT DERATING CURVE

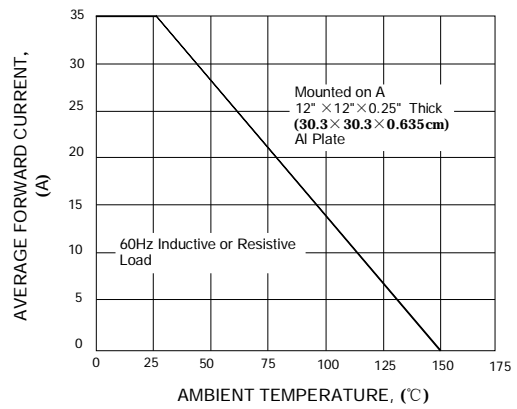


FIG. 3- TYPICAL INSTANTANEOUS FORWARDS CHARACTERISTICS

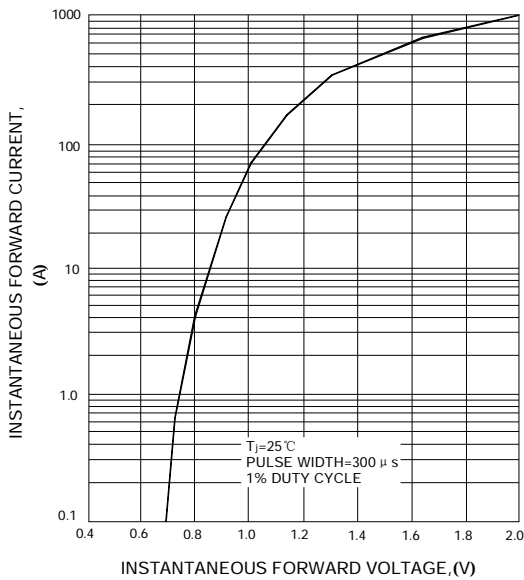


FIG. 3- MAXIMUM POWER DISSIPATION

