



E502650

## Features

- Glass Passivated Die Construction
- General Purpose 3 Phases Bridge Rectifier Applications
- High Surge Current Capability
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

**50 Amp  
Three Phases  
Bridge Rectifier  
400 to 1600 Volts**

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 0.88°C/W Junction to Case

## Mechanical Data

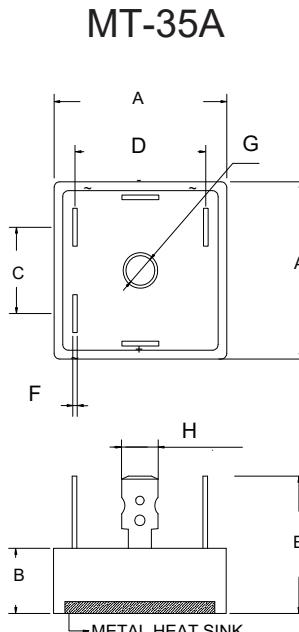
- Mounting Torque: 2 N·m Maximum

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MT5004A	MT5004A	400V	280V	400V
MT5006A	MT5006A	600V	420V	600V
MT5008A	MT5008A	800V	560V	800V
MT5010A	MT5010A	1000V	700V	1000V
MT5012A	MT5012A	1200V	840V	1200V
MT5014A	MT5014A	1400V	980V	1400V
MT5016A	MT5016A	1600V	1120V	1600V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	50A	$T_C = 55^\circ C$
Forward Surge Current(Nonrepetitive)	$I_{FSM}$	500A	60Hz Sine Wave, 1cycle,
Peak Forward Voltage	$V_{FM}$	1.2V	$I_{FM}=25A$ , Pulse measurement, Rating of Per Diode
Peak Reverse Current	$I_{RRM}$	10 $\mu$ A	Pulse Measurement Rating of Per Diode
Current Squared Time	$I^2t$	1042A <sup>2</sup> S	1ms < $t$ < 8.3ms Rating of Per Diode
Dielectric Strength	$V_{dis}$	2KV	AC 1min, Terminals to Case

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7a.



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.110	1.134	28.20	28.80	
B	0.354	0.394	9.00	10.00	
C	0.610	0.650	15.50	16.50	
D	0.917	0.957	23.30	24.30	
E	0.944		25.00		TYP.
F	0.029	0.033	0.75	0.85	
G	0.193		4.90		TYP.
H	0.244	0.251	6.20	6.40	

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

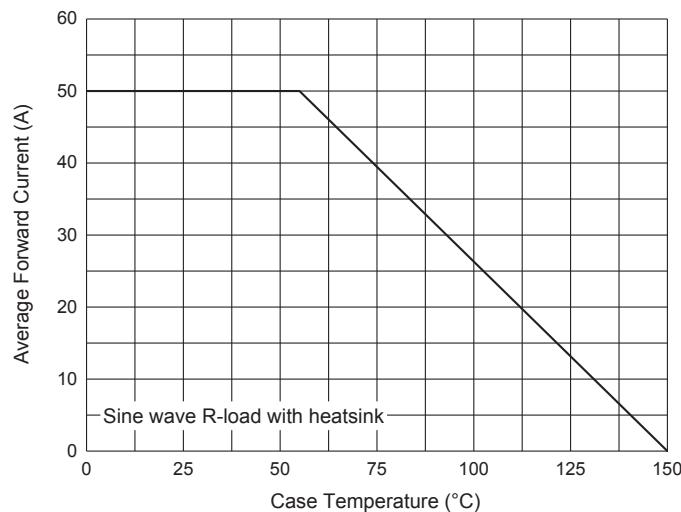


Fig. 3 - Typical Instantaneous Forward Characteristics

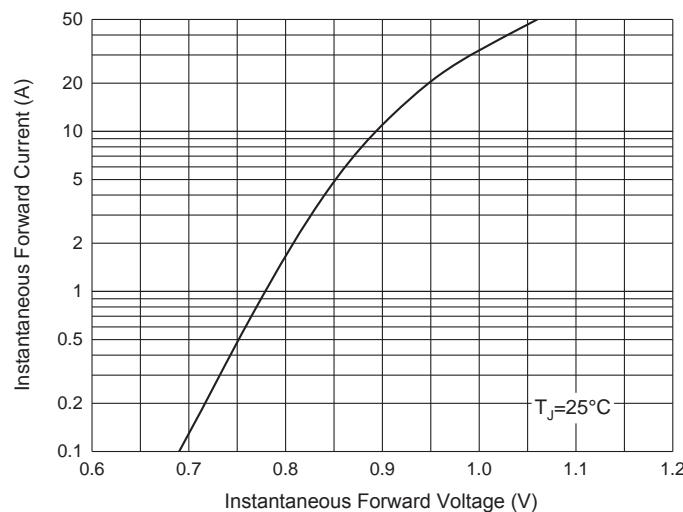


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

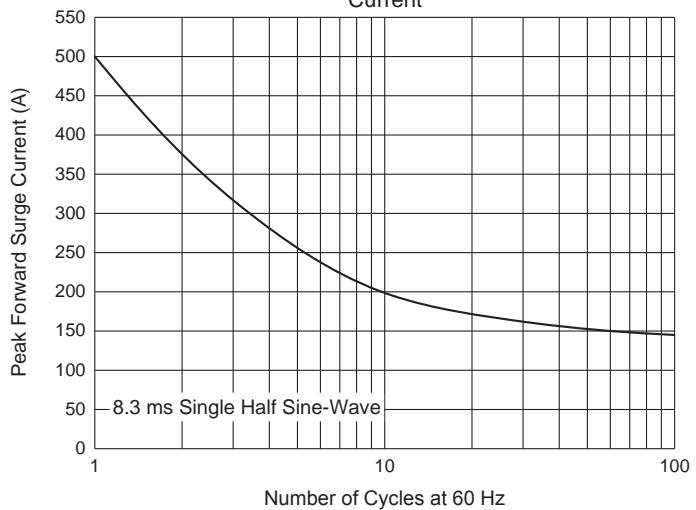
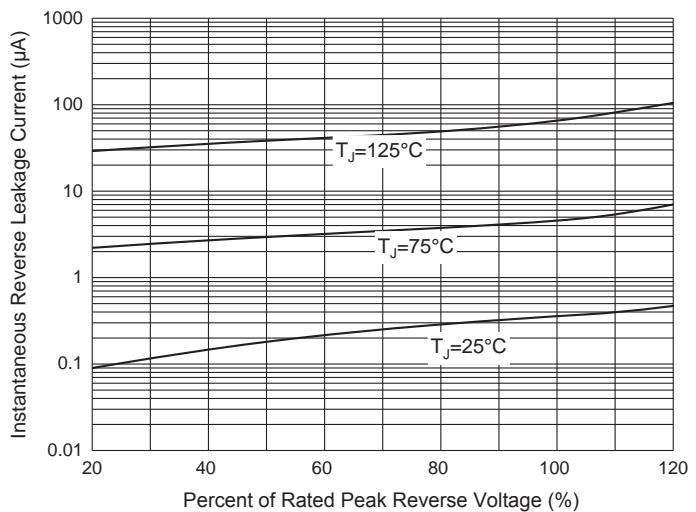


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

Device	Packing
Part Number-BP	Bulk: 50PCS/BOX:400PCS/CTN

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