

# MP5005W~MP5010W

## BRIDGE RECTIFIERS

**VOLTAGE** 50 to 1000 Volt **CURRENT** 50 Ampere

MP-50W

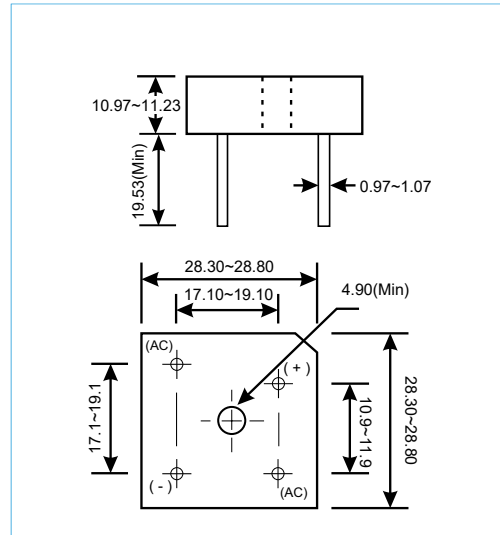
Unit:mm

### FEATURES

- Glass passivated chip junction
- Plastic Case with Metal Bottom
- Low Reverse Leakage Current
- High Efficiency
- Lead free in compliance with EU RoHS

### MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	MP5005W	MP5010W	MP502W	MP504W	MP506W	MP508W	MP5010W	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current (see FIG.1)	$I_{F(AV)}$	50							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	450							A
Maximum Forward Voltage at 25 A	$V_F$	1.1							V
Maximum DC Reverse Current at $T_J = 25^\circ\text{C}$ Rated DC Blocking Voltage $T_J = 125^\circ\text{C}$	$I_R$	10 500							$\mu\text{A}$
Thermal Resistance (Note1)	$R_{\theta JC}$	0.95							$^\circ\text{C/W}$
$I^2t$ Rating for fusing	$I^2t$	840							$\text{A}^2\text{S}$
Operating Junction Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

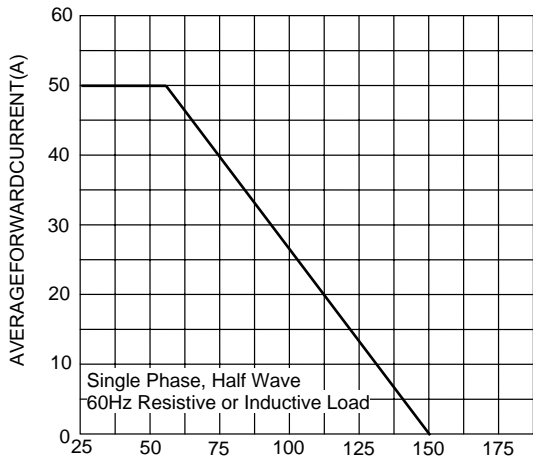
### NOTES:

1. Thermal resistance junction to case mounted on heatsink.

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## RATING AND CHARACTERISTIC CURVES

FIG.1 Forward Derating Curve



Average Forward Rectified Current - Amperes versus Case Temperature - °C

FIG.2 Surge Forward Current Capability

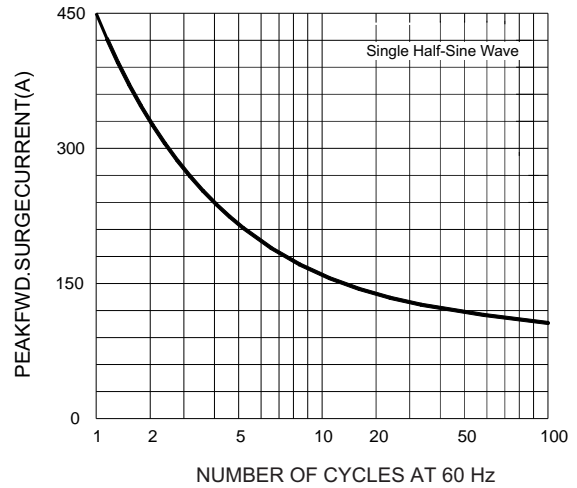


FIG.3 TYPICAL FORWARD CHARACTERISTICS

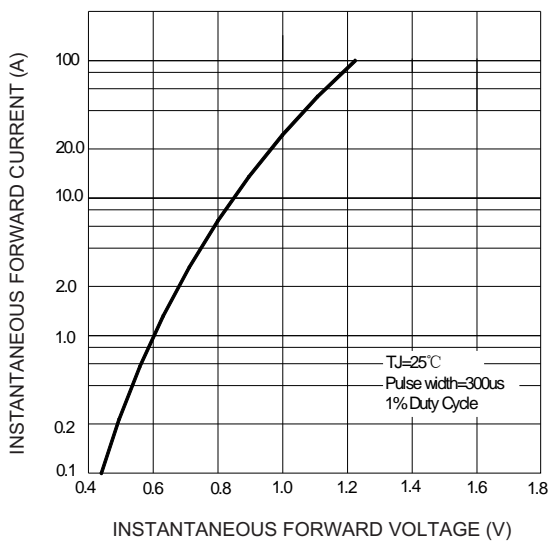
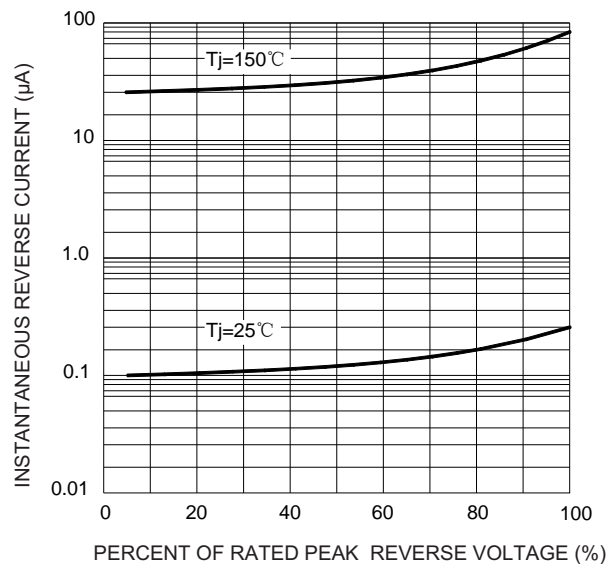


FIG.4 Typical Reverse Characteristics



## MP5005W~MP5010W

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### ORDER INFORMATION

- Packing information

Part Number	Case	DELIVERY MODE	QUANTITY
MP5005W~MP5010W	MP-50W	BULK	400/Ctn