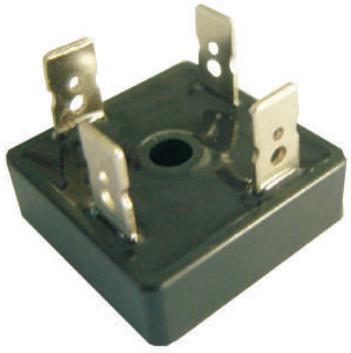
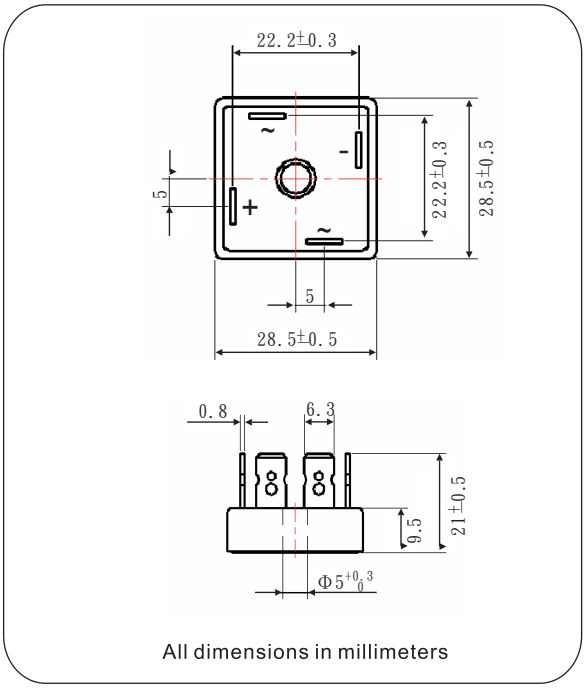
Glass Passivated Single-Phase Bridge Rectifier, 35A

35MB08 Thru 35MB16



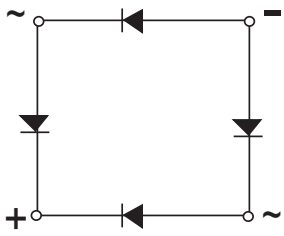


All dimensions in millimeters

FEATURES

RoHS COMPLIANT

- Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- Typical IR less than 1.0 μA
- High surge current capability
- Low thermal resistance
- Solder dip 260°C, 40s
- Compliant to RoHS
- Glass passivated chips



TYPICAL APPLICATIONS

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

MECHANICAL DATA

Case: GBPC
Epoxy meets UL 94 V-O flammability rating
Terminals: Nickel plated on faston lugs, solderable per J-STD-002 and JESD22-B102.
Polarity: As marked
Mounting Torque: 20 inches-lbs. max. (M5 screw)
Weight : 18g (0.63 ozs)

PRIMARY CHARACTERRISTICS	
$I_{F(AV)}$	35A
V_{RRM}	800V to 1600V
I_{FSM}	400A
I_R	2 μA
V_F	1.1V
$T_{J\ max.}$	150°C

MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)						
PARAMETER	SYMBOL	35MB				UNIT
		08	10	12	16	
Maximum repetitive peak reverse voltage	V_{RRM}	800	1000	1200	1600	V
Maximum RSM voltage (non-repetitve peak reverse voltage)	V_{RMS}	900	1100	1300	1700	V
Maximum DC blocking voltage	V_{DC}	800	1000	1200	1600	V
Maximum average forward rectified output current (Fig.1)	$I_{F(AV)}$	35				A
Peak forward surge current single sine-wave superimposed on rated load	I_{FSM}	400				A
Rating (non-repetitive, for t greater than 1 ms and less than 8.3 ms) for fusing	I^2t	660				A^2s
RMS isolation voltage from case to leads	V_{ISO}	2500				V
Operating junction storage temperature range	T_J,T_{STG}	-55 to 150				°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)							
PARAMETER	TEST CONDITIONS	SYMBOL	35MB				UNIT
			08	10	12	16	
Maximum instantaneous forward drop per diode	I_F = 17.5A	V_F	1.1				V
Maximum reverse DC current at rated DC blocking voltage per diode	T_A = 25°C	I_R	5				μA
	T_A = 150°C		500				
Typical junction capacitance per diode	4V, 1MHz	C_J	300				pF

THERMAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)						
PARAMETER	SYMBOL	35MB				UNIT
		08	10	12	16	
Typical thermal resistance	$R_{\theta JC}$(1)	1.4				°C/W

Notes

(1) With heatsink

(2) Bolt down on heatsink with silicone thermal compound between bridge and mounting surface for maximum heat transfer with #10 screw

Fig.1 Maximum Output Rectified Current

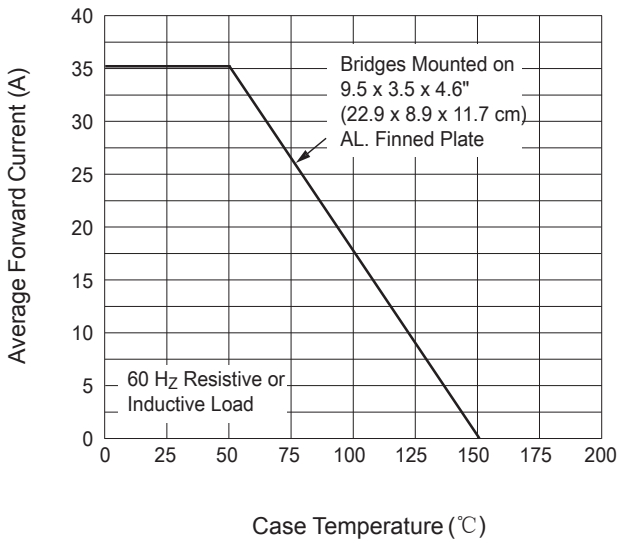


Fig.2 Maximum Output Rectified Current

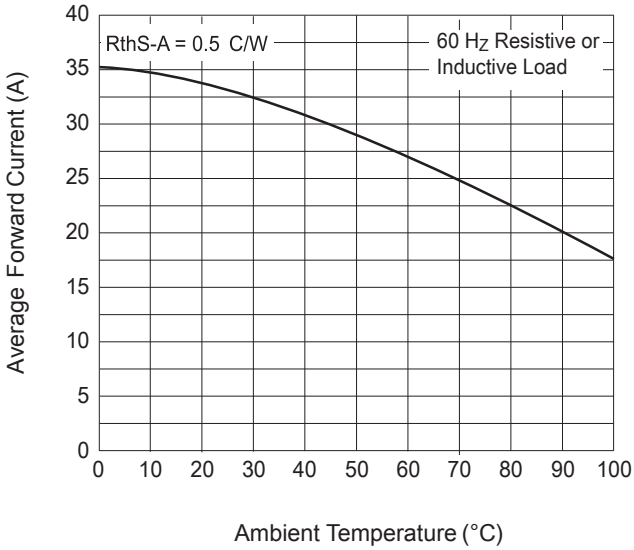


Fig.3 Maximum Power Dissipation

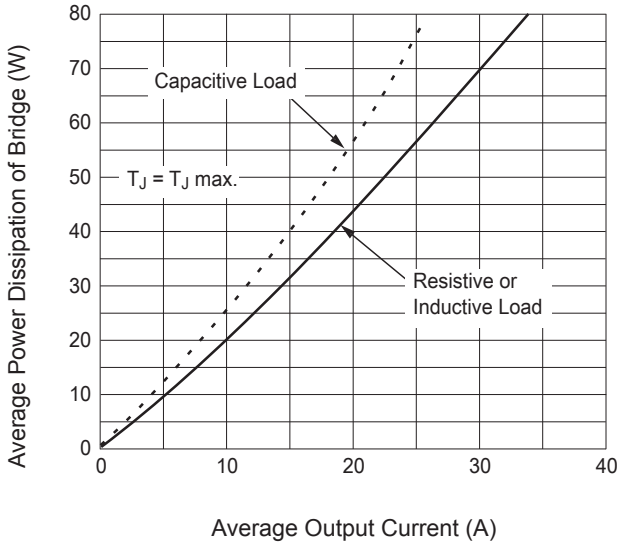


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current Per Diode

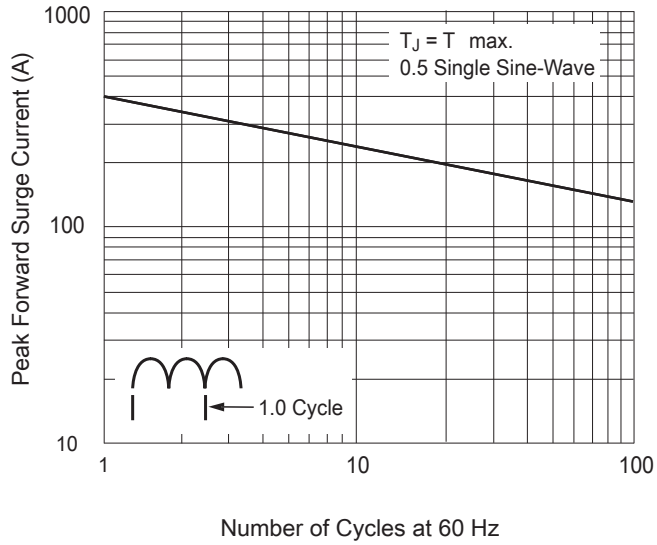


Fig.5 Typical Instantaneous Forward Characteristics Per Leg

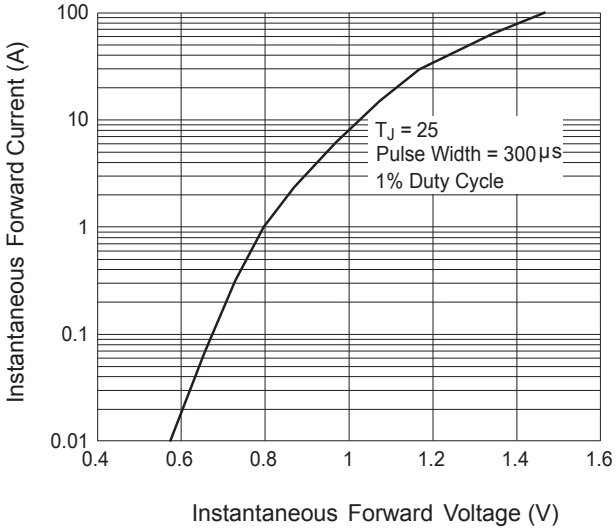


Fig.6 Typical Reveres Leakage Characteristics Per Leg

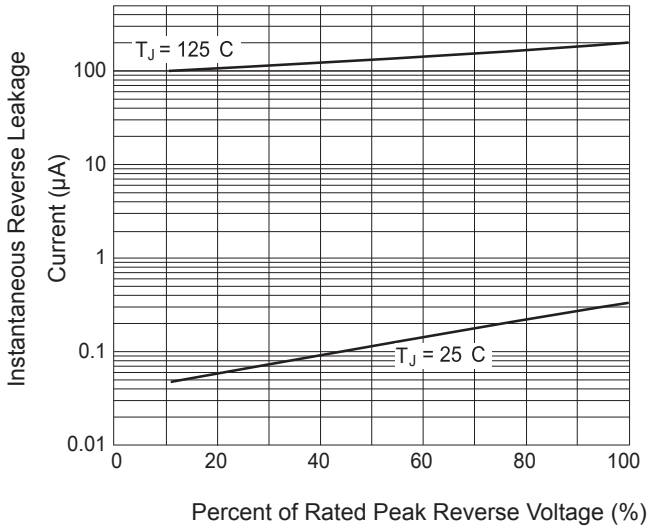


Fig.7 Typical Junction Capacitance Per Leg

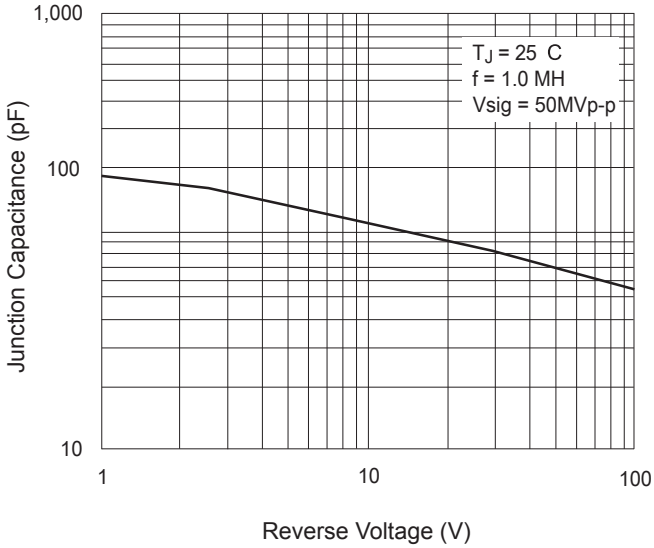


Fig .8Typical Transient Thermal lmpedance Per Leg