

## Surface Mount Glass Passivated Bridge Rectifier

**Voltage**

**1000 V**

**Current**

**4A**

### Features

- Glass passivated chip junction
- Ideally suited for automatic assembly
- Save space on printed circuit boards
- Ultra thin profile package for space constrained utilization
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case : MSBL Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.00825 ounces, 0.234 grams

### Application

- Quick Charger (<20W)
- General power adapter (<30W)
- In-door Led lighting, Bulb/ PAR lighting
- Netcom power (<35W)
- Smart speaker adapter (<20W)

MSBL



**Maximum Ratings and Thermal Characteristics** ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum RMS Voltage	$V_{RMS}$	700	V
Maximum DC Blocking Voltage	$V_{DC}$	1000	V
Maximum Average Forward Current	$I_{F(AV)}$	4	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25\text{ }^\circ\text{C}$ @ $T_A = 125\text{ }^\circ\text{C}$ $I_{FSM}$	120 96	A
Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25\text{ }^\circ\text{C}$ @ $T_A = 125\text{ }^\circ\text{C}$ $I_{FSM}$	240 192	A
$I^2 t$ rating for fusing ( $t = 8.3\text{ms}$ )	$I^2 t$	60	$A^2S$
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$ (Note 1)	$C_J$	50	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	24	$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	-55~150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55~150	$^\circ\text{C}$

**Electrical Characteristics** ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	$V_F$	$I_F = 4\text{ A}$ , $T_J = 25\text{ }^\circ\text{C}$	-	-	1.1	V
Reverse Current	$I_R$	$V_R = 1000\text{ V}$ , $T_J = 25\text{ }^\circ\text{C}$	-	-	5	$\mu\text{A}$
		$V_R = 1000\text{ V}$ , $T_J = 125\text{ }^\circ\text{C}$	-	-	100	

NOTES :

1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted on a FR4, 100x100x1.6mm, 2oz copper pad area

TYPICAL CHARACTERISTIC CURVES

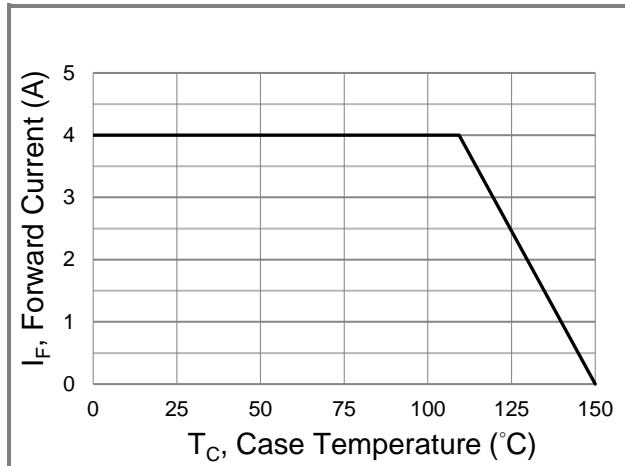


Fig.1 Forward Current Derating Curve

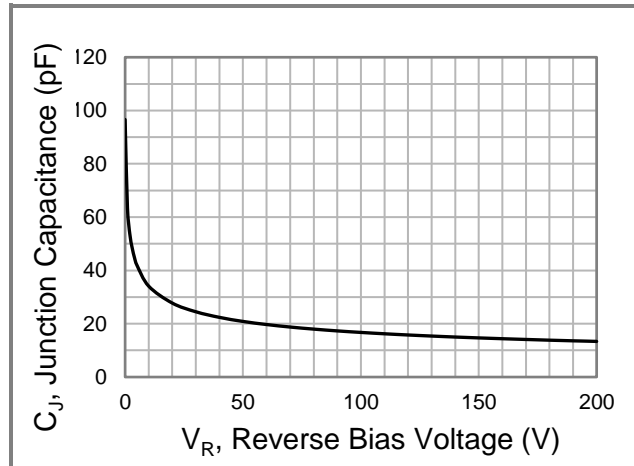


Fig.2 Typical Junction Capacitance

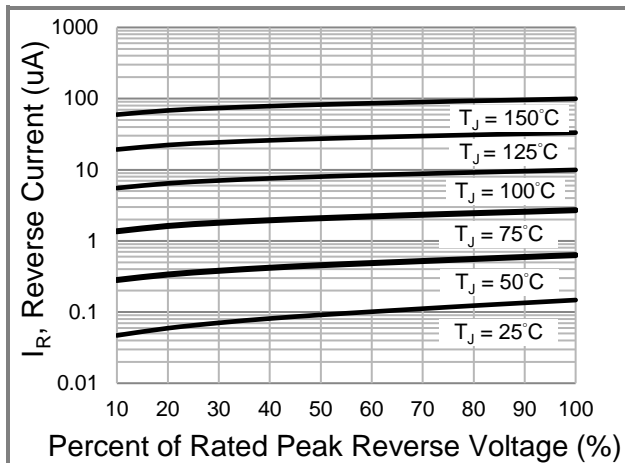


Fig.3 Typical Reverse Characteristics

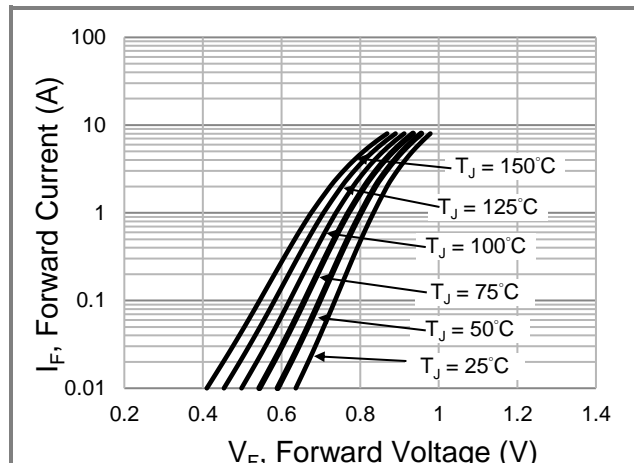
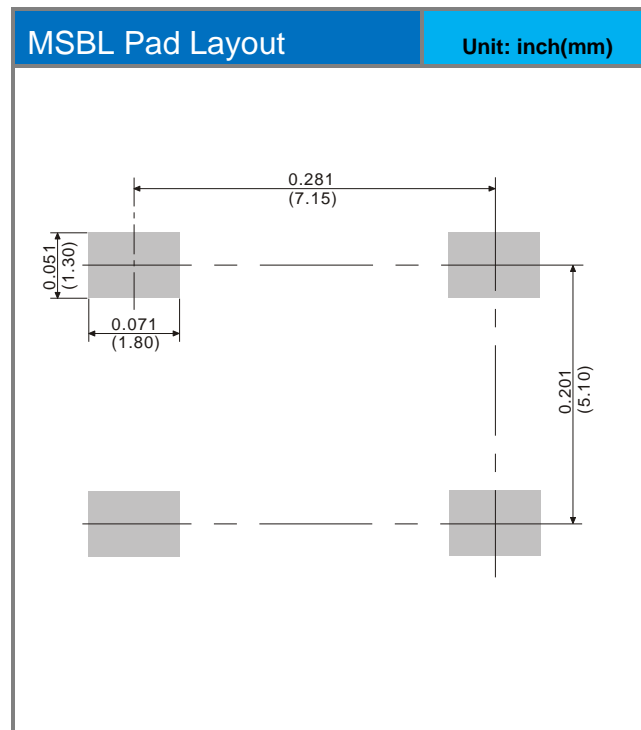
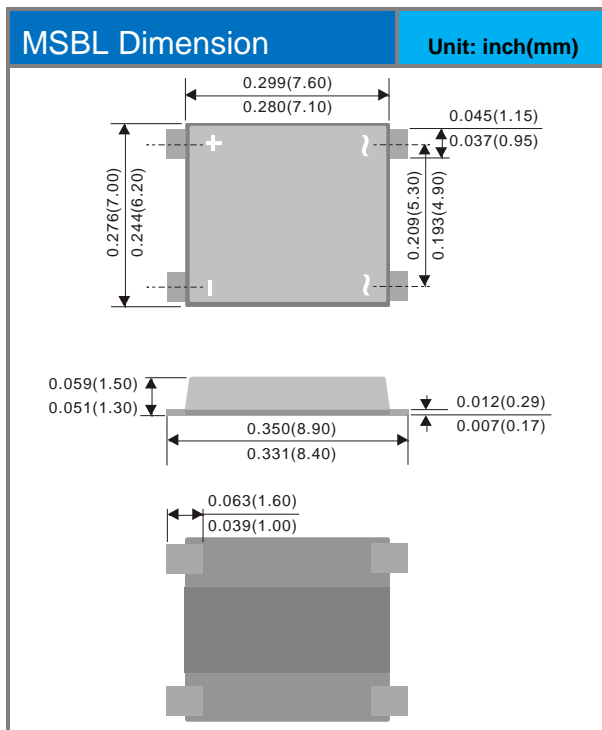


Fig.4 Typical Forward Characteristics

**Part No. Packing Code Version**

Part No. Packing Code	Package Type	Packing Type	Marking
MSB4M_R2_00101	MSBL	3K pcs / 13" reel	MSB4M

**Packaging Information & Mounting Pad Layout**



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