

Surface Mount Glass Passivated Bridge Rectifier

Voltage

1000 V

Current

3A

Features

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

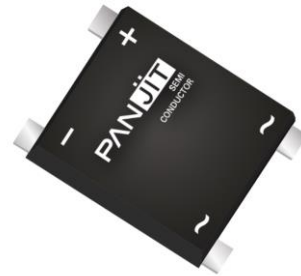
Mechanical Data

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

Application

- Quick Charger (<45W)
- General power adapter (<50W)
- USB PD , NB Adapter (<65W)
- 3-in-1 DTV Power Board (<45W)
- Smart speaker adapter (<40W)

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	$I_{F(AV)}$	3	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}	110 88	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}	220 176	A
$I^2 t$ rating for fusing ($t = 8.3\text{ms}$)	$I^2 t$	50.2	A^2S
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$ (Note 1)	C_J	40	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	20	$^\circ\text{C/W}$
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	$I_F = 3\text{ A}$, $T_J = 25\text{ }^\circ\text{C}$	-	-	1.1	V
Reverse Current	I_R	$V_R = 1000\text{ V}$, $T_J = 25\text{ }^\circ\text{C}$	-	-	5	μA
		$V_R = 1000\text{ V}$, $T_J = 125\text{ }^\circ\text{C}$	-	-	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

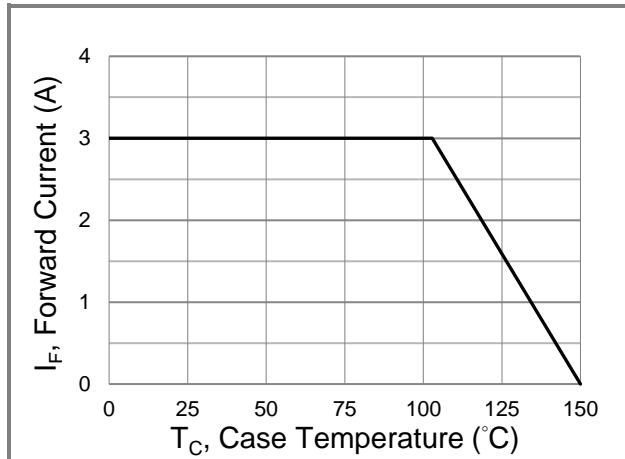


Fig.1 Forward Current Derating Curve

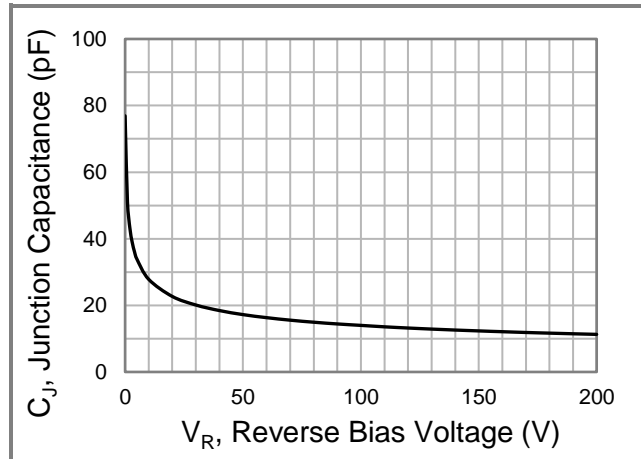


Fig.2 Typical Junction Capacitance

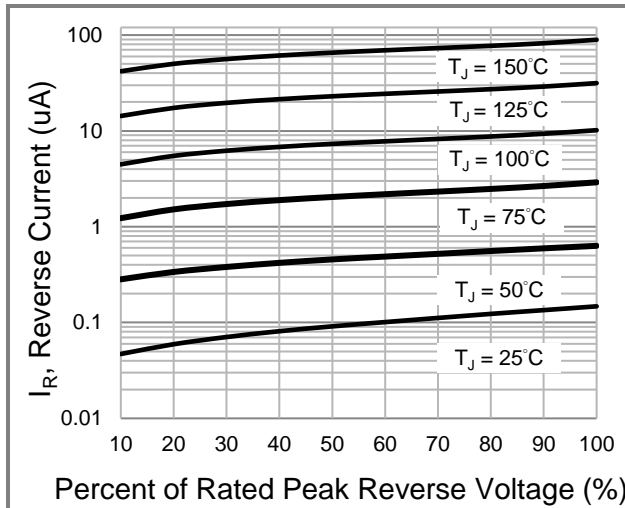


Fig.3 Typical Reverse Characteristics

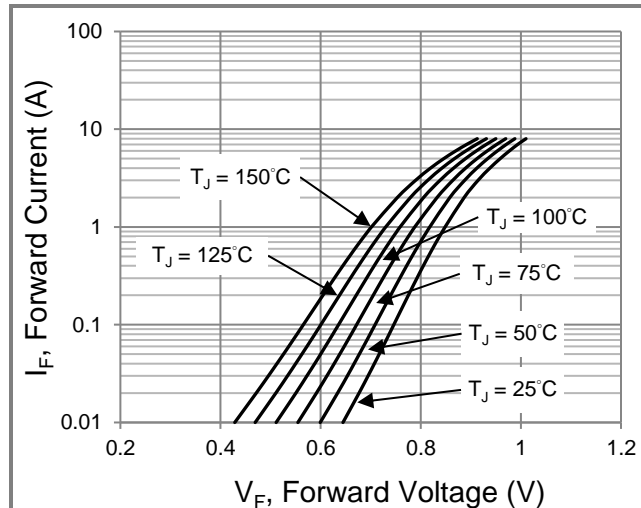
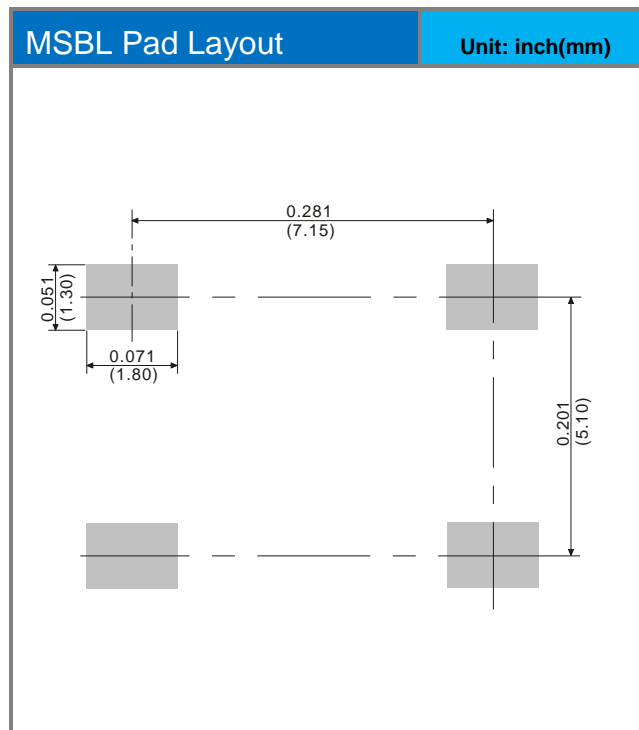
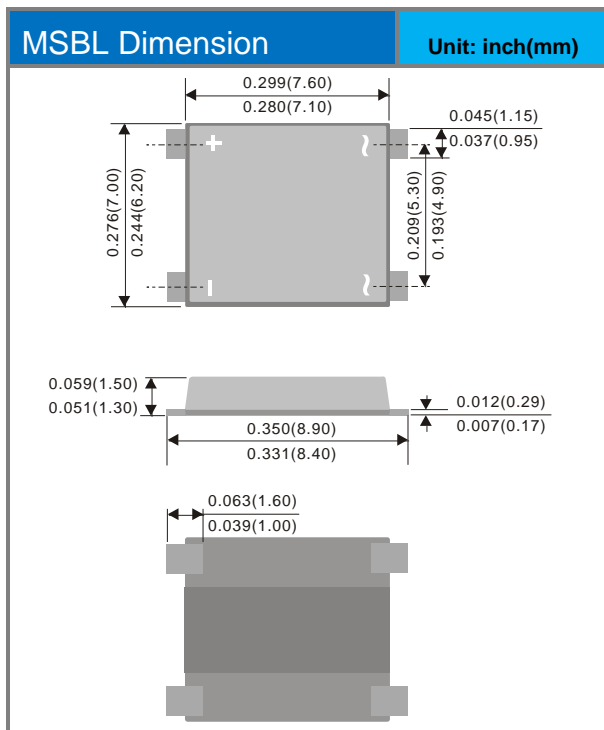


Fig.4 Typical Forward Characteristics

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking
MSB3M_R2_00101	MSBL	3K pcs / 13" reel	MSB3M

Packaging Information & Mounting Pad Layout



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