

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
- Lead free in compliance with EU RoHS 2.0
- Halogen-free according to IEC 61249 standard

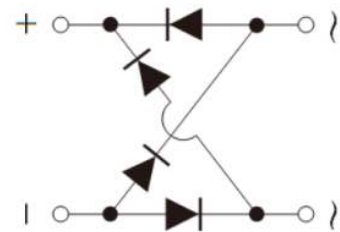
Mechanical Data

- Case : M4 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.29 grams

Application

- QC/PD Charger
- General Console power
- NB Adapter
- Monitor Power
- Smart Speaker Power
- Slim Adapter

M4



Key Parameters	
Parameter	Value
V_{RRM}	1000V
$I_F(AV)$	3A
I_{FSM}	110A
I_R	5uA
Package	M4

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	@ $T_A = 25\text{ }^\circ\text{C}$	I_{FSM}	110	A
	@ $T_A = 125\text{ }^\circ\text{C}$		80	
Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25\text{ }^\circ\text{C}$	I_{FSM}	200	A
	@ $T_A = 125\text{ }^\circ\text{C}$		150	
$I^2 t$ rating for fusing ($t = 8.3\text{ms}$)		$I^2 t$	50.2	A^2S
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$		C_J	40	pF
Typical Thermal Resistance (Note 1)		$R_{\theta JA}$	30	$^\circ\text{C/W}$
		$R_{\theta JL}$	10	
		$R_{\theta Jc}$	12	
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	$I_F = 1.5\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	-	1.05	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. Mounted on a FR4, 100x100x1.6mm ,2oz copper pad area.

TYPICAL CHARACTERISTIC CURVES

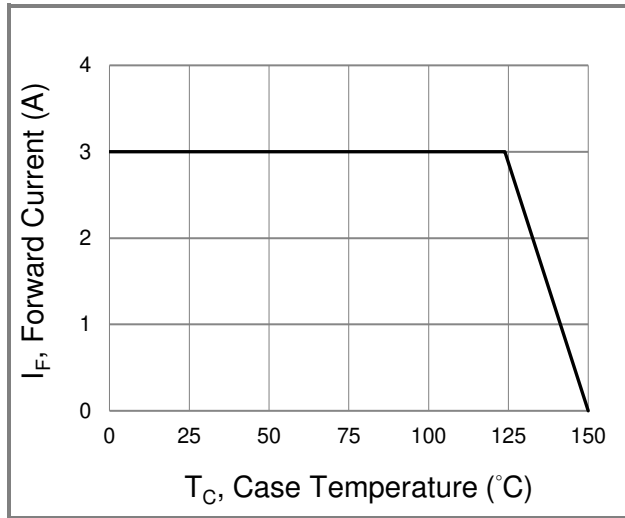


Fig.1 Forward Current Derating Curve

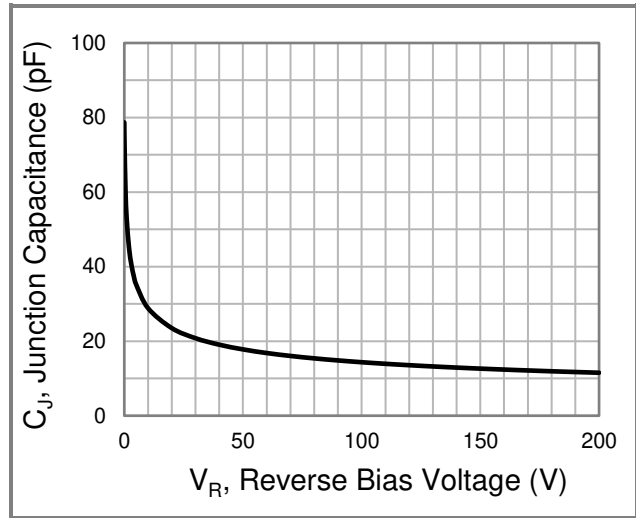


Fig.2 Typical Junction Capacitance

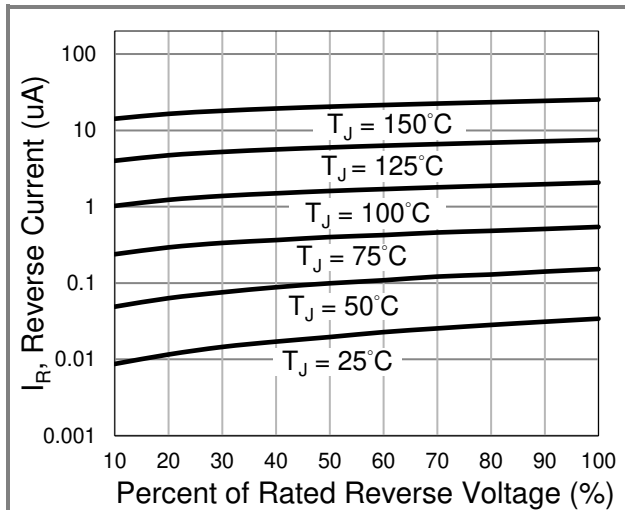


Fig.3 Typical Reverse Characteristics

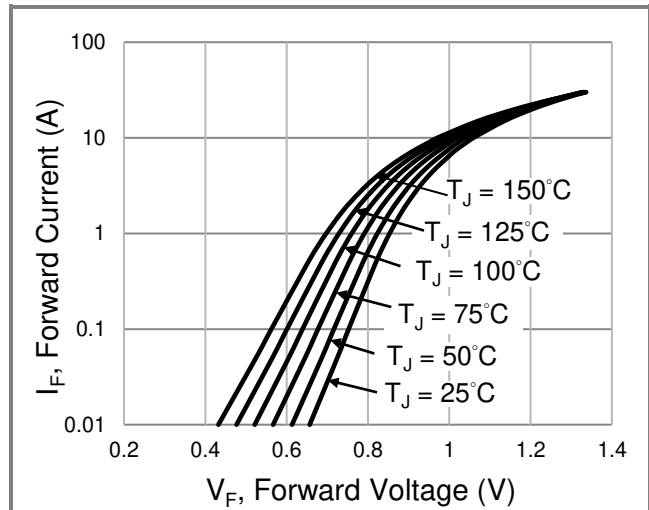
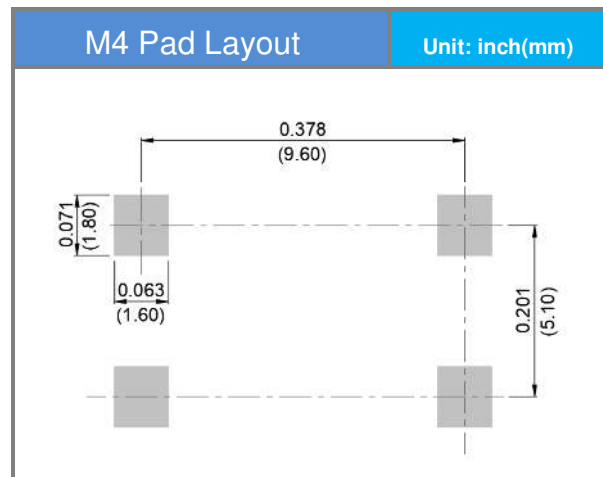
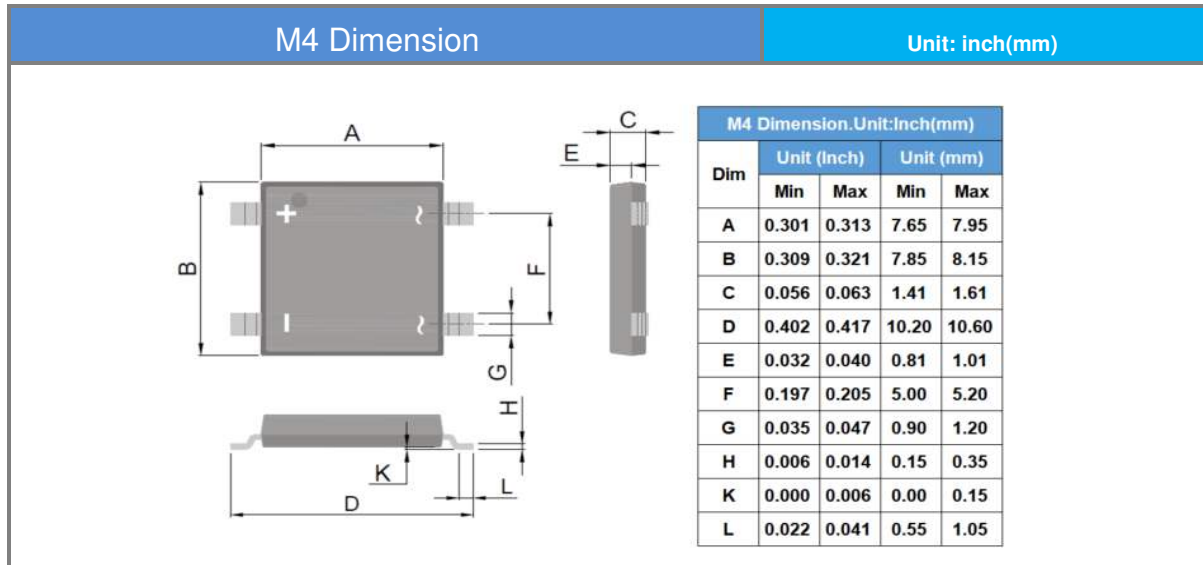


Fig.4 Typical Forward Characteristics

Part No. Marking Code Version

Approved Part No.	Package Type	Packing Type	Marking
PMS310	M4	3K pcs / 13" reel	PMS310

Packaging Information & Mounting Pad Layout



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