

## Surface Mount Glass Passivated Fast Recovery Bridge Rectifier

**Voltage**

**1000 V**

**Current**

**3A**

### Features



- Fast reverse recovery time
- Ideally suited for automatic assembly
- Save space on printed circuit boards
- Ultra thin profile package for space constrained utilization
- UL recognition file number E111753
- Lead free in compliance with EU RoHS 2.0
- Halogen-free according to IEC 61249 standard

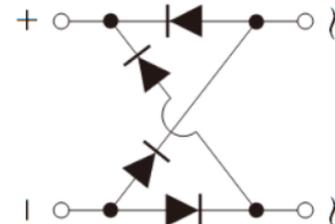
### Mechanical Data

- 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
$V_{RRM}$	<b>1000V</b>
$I_F(AV)$	<b>3A</b>
$I_{FSM}$	<b>110A</b>
$I_R$	<b>5uA</b>
$T_{rr}$	<b>250ns</b>
<b>Package</b>	<b>M4</b>

**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	@ $T_A = 25\text{ }^\circ\text{C}$	110	A
	@ $T_A = 125\text{ }^\circ\text{C}$	88	
Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25\text{ }^\circ\text{C}$	220	A
	@ $T_A = 125\text{ }^\circ\text{C}$	160	
$I^2 t$ rating for fusing ( $t = 8.3\text{ms}$ )	$I^2 t$	50	$\text{A}^2\text{S}$
Typical Junction Capacitance Measured at 1 MHZ And Applied $V_R = 4\text{ V}$	$C_J$	35	pF
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	250	ns
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	50	$^\circ\text{C/W}$
	$R_{\theta JL}$	35	
	$R_{\theta JC}$	28	
Operating junction and storage temperature range	$T_J, T_{STG}$	-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	$V_F$	$I_F = 1.5\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	-	1.3	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. Mounted on a FR4,100x100x1.6mm ,2oz copper pad area.
2. Measured with  $I_F = 0.5\text{ A}$ ,  $I_R = 1\text{ A}$ ,  $I_{RR} = 0.25\text{ A}$ .

TYPICAL CHARACTERISTIC CURVES

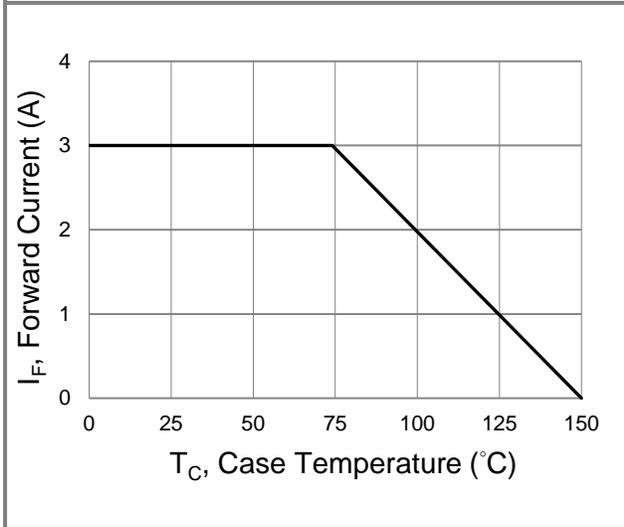


Fig.1 Forward Current Derating Curve

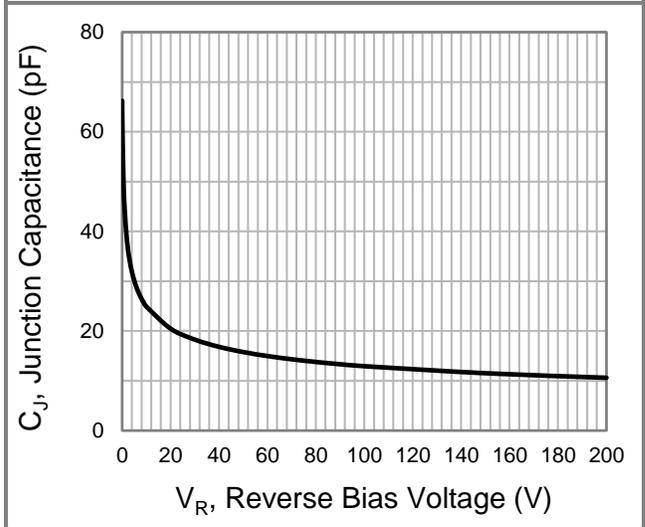


Fig.2 Typical Junction Capacitance

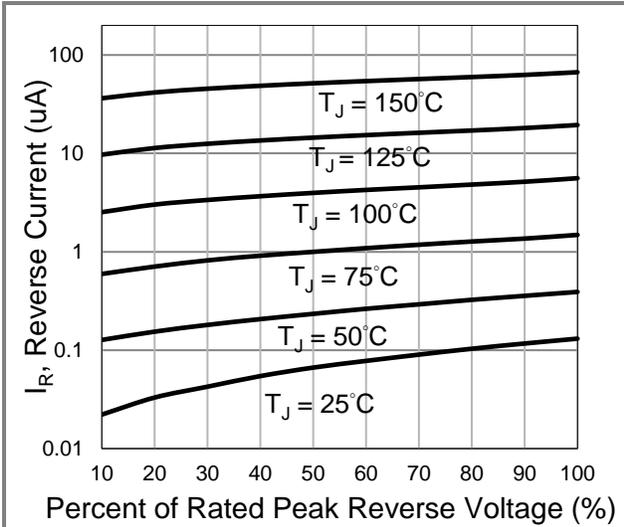


Fig.3 Typical Reverse Characteristics

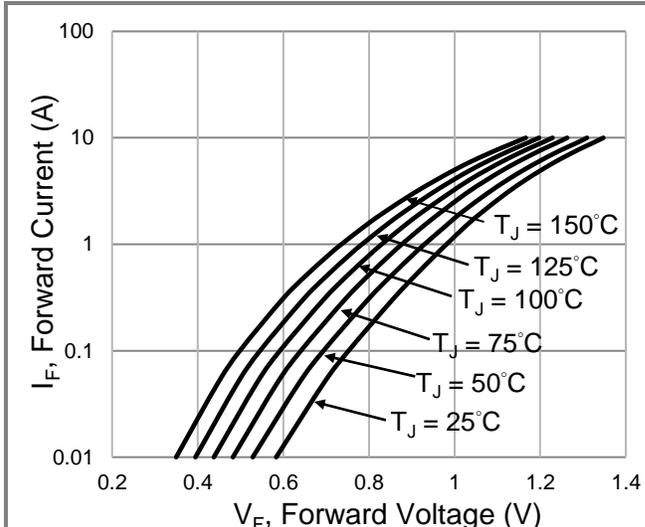
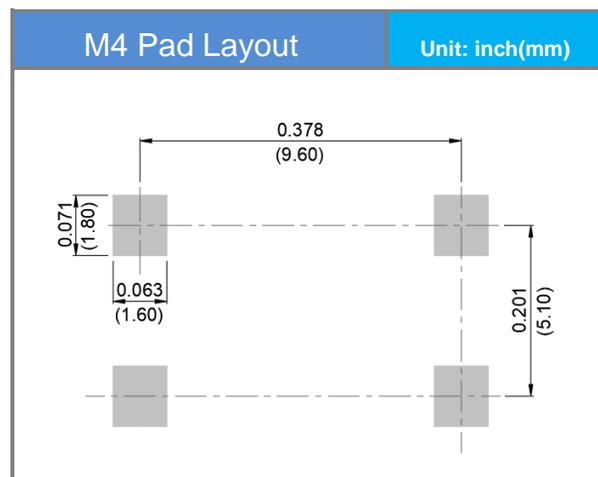
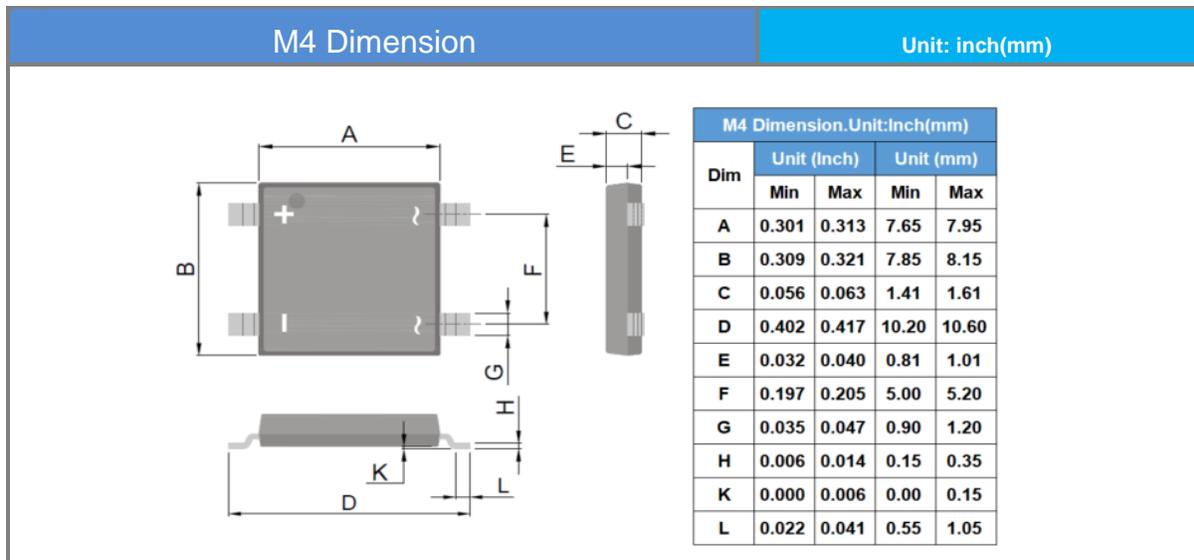


Fig.4 Typical Forward Characteristics

**Product and Packing Information**

Part No.	Package Type	Packing Type	Marking
RPMS310	M4	3K pcs / 13" reel	RPMS310

**Packaging Information & Mounting Pad Layout**



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