

Surface Mount Glass Passivated Fast Bridge Rectifier

M8

Voltage

1000 V

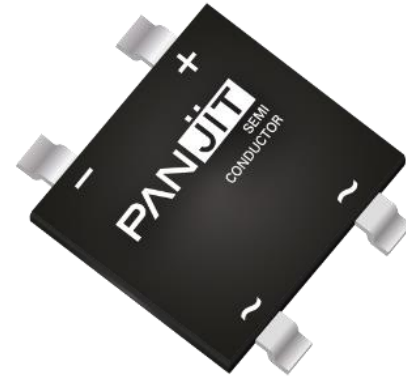
Current

6A

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

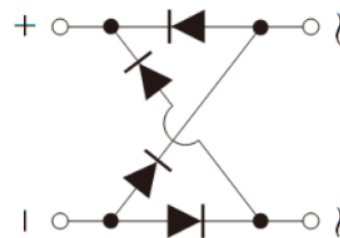


Mechanical Data

- Case : M8 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.4794 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)



Key Parameters	
Parameter	Value
V_{RRM}	1000V
I_{F(AV)}	6A
I_{FSM}	150A
I_R	5uA
T_{rr}	250ns
Package	M8

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	$I_{F(AV)}$	6	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25\text{ }^\circ\text{C}$	150	A
	@ $T_A = 125\text{ }^\circ\text{C}$	120	
Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25\text{ }^\circ\text{C}$	300	A
	@ $T_A = 125\text{ }^\circ\text{C}$	240	
$I^2 t$ rating for fusing ($t = 8.3\text{ms}$)	$I^2 t$	93	A^2S
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$	C_J	45	pF
Maximum Reverse Recovery Time (Note 2)	T_{rr}	250	ns
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	20	$^\circ\text{C/W}$
	$R_{\theta JL}$	8	
	$R_{\theta JC}$	5	
Operating junction and storage temperature range	T_J, T_{STG}	-55~150	$^\circ\text{C}$

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 3\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	-	1.3	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.
2. Measured with $I_F = 0.5\text{ A}, I_R = 1\text{ A}, I_{RR} = 0.25\text{ A}$.

TYPICAL CHARACTERISTIC CURVES

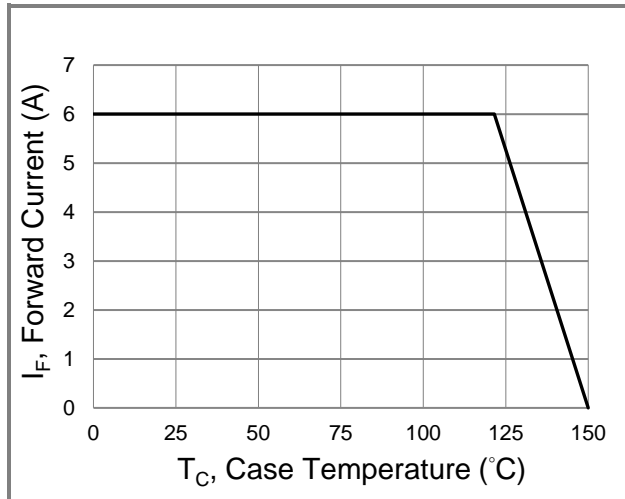


Fig.1 Forward Current Derating Curve

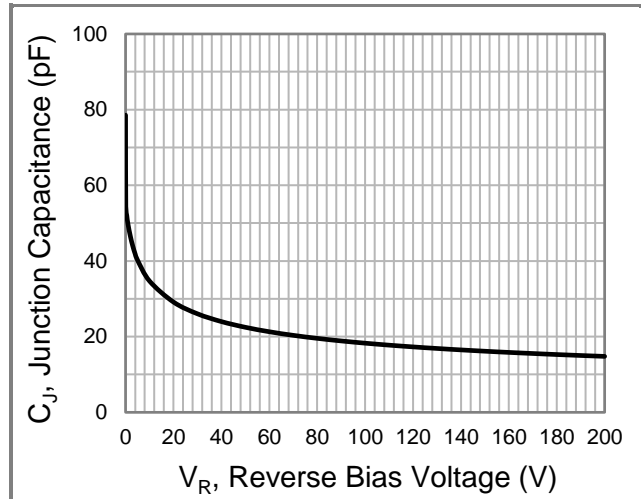


Fig.2 Typical Junction Capacitance

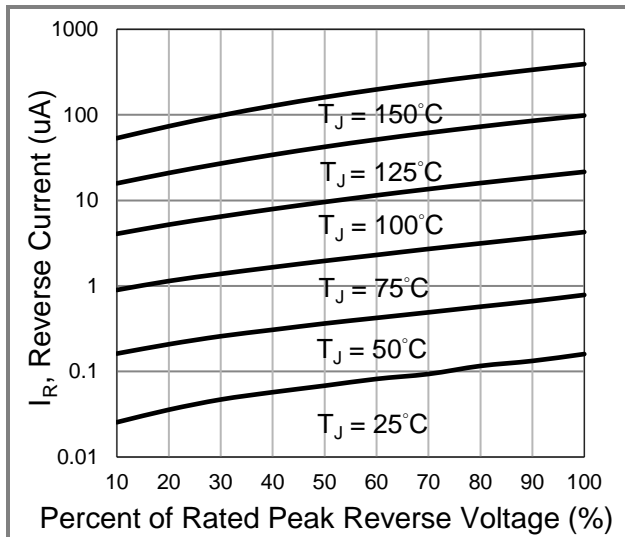


Fig.3 Typical Reverse Characteristics

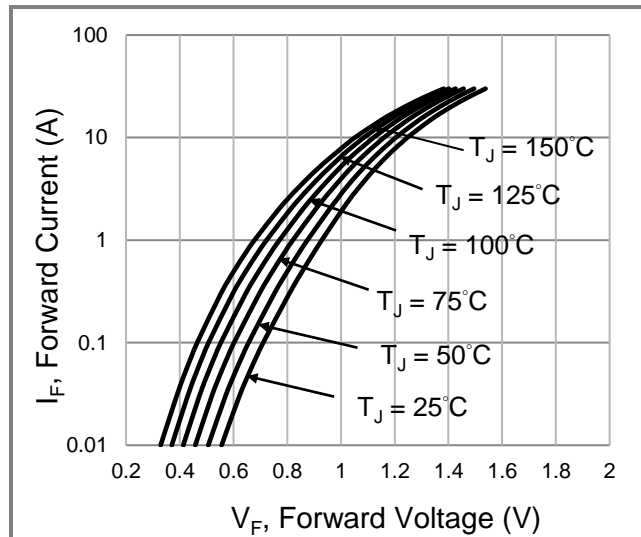
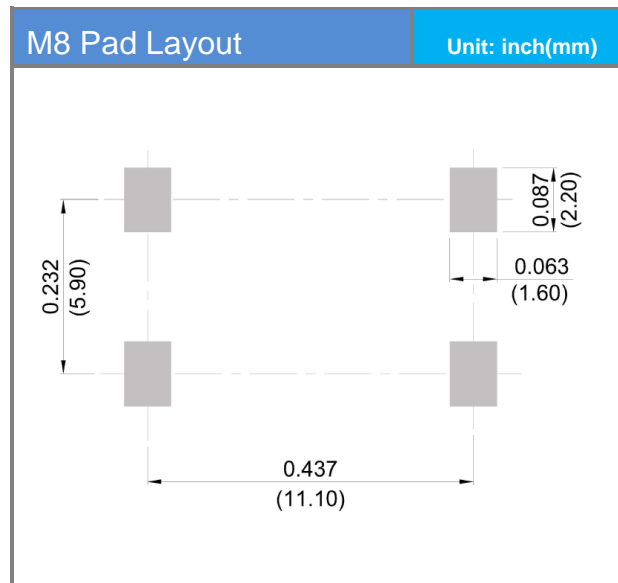
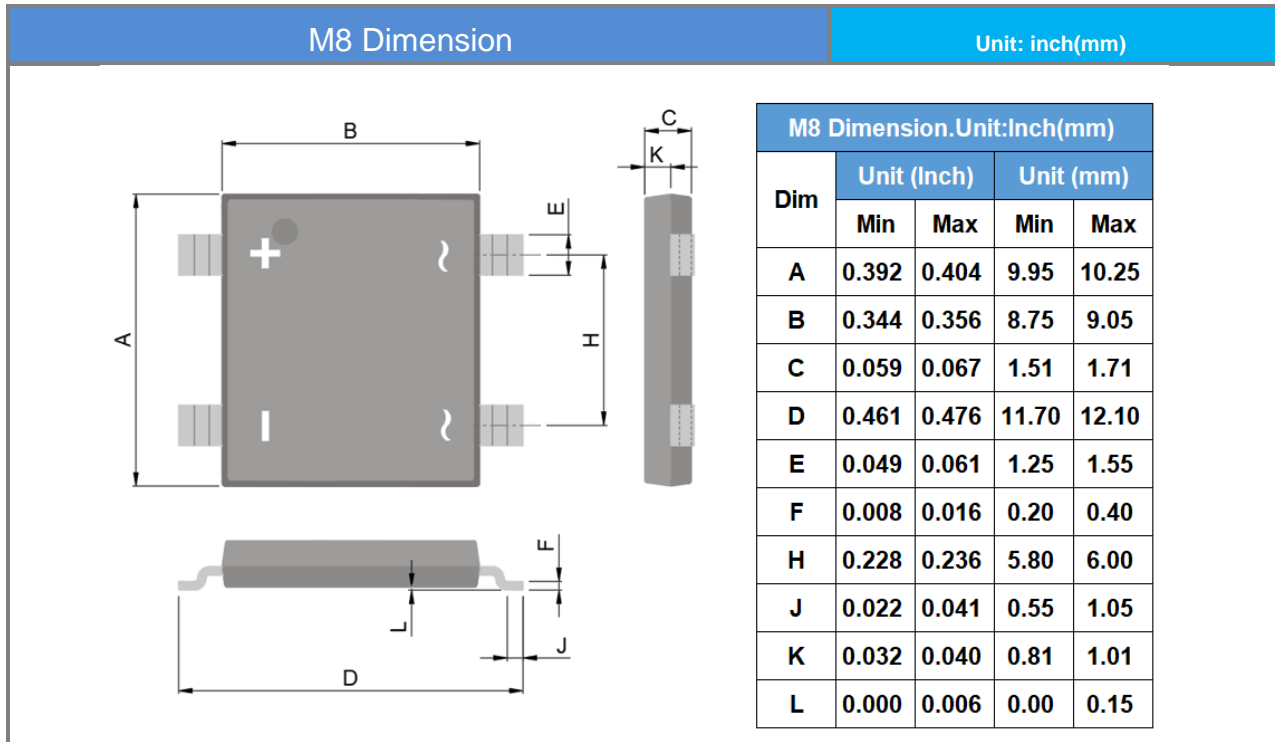


Fig.4 Typical Forward Characteristics

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
RPM610	M8	2K pcs / 13" reel	RPM610

Packaging Information & Mounting Pad Layout



Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.