Surface Mount Glass Passivated Bridge Rectifier

M8

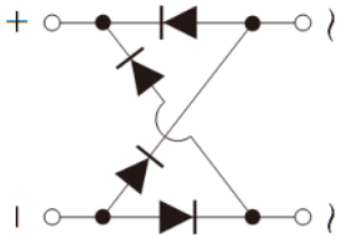
Voltage	1000 V	Current	6A

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 : 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
Package	M8

Maximum Ratings and Thermal Characteristics (T_A = 25 °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	With heatsink	$I_{F(AV)}$	6	A
	Without heatsink		1.8	
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	@ T_A = 25 °C	I_{FSM}	150	A
	@ T_A = 125 °C		120	
Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load	@ T_A = 25 °C	I_{FSM}	300	A
	@ T_A = 125 °C		240	
I^2t rating for fusing (t = 8.3ms)		I^2t	93.3	A^2S
Typical Junction Capacitance Measured at 1 MHZ And Applied V_R = 4 V		C_J	55	pF
Typical Thermal Resistance (Note 1)		$R_{\theta JA}$	12	°C/W
		$R_{\theta JL}$	8	
		$R_{\theta JC}$	4	
Operating junction and storage temperature range		T_J, T_{STG}	-55~150	°C

Electrical Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	I_F = 3 A, T_J = 25 °C	-	-	1.05	V
Reverse Current	I_R	V_R = 1000 V, T_J = 25 °C	-	-	5	uA
		V_R = 1000 V, T_J = 125 °C	-	-	100	

NOTES :

1. Mounted on a FR4,100x100x1.6mm ,2oz copper pad area

TYPICAL CHARACTERISTIC CURVES

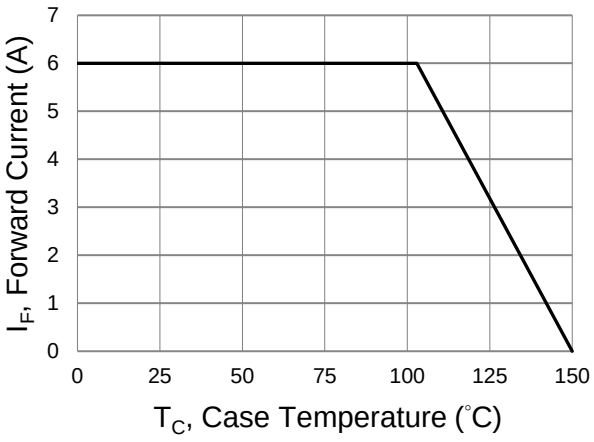


Fig.1 Forward Current Derating Curve

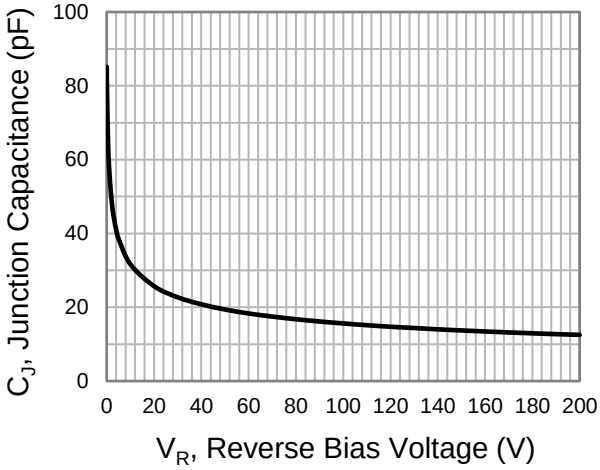


Fig.2 Typical Junction Capacitance

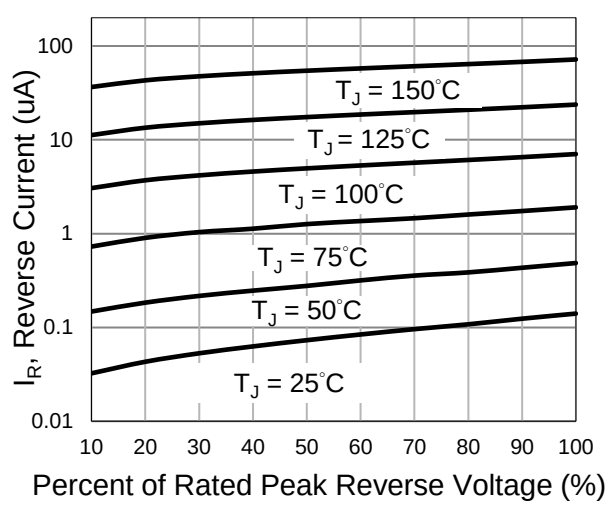


Fig.3 Typical Reverse Characteristics

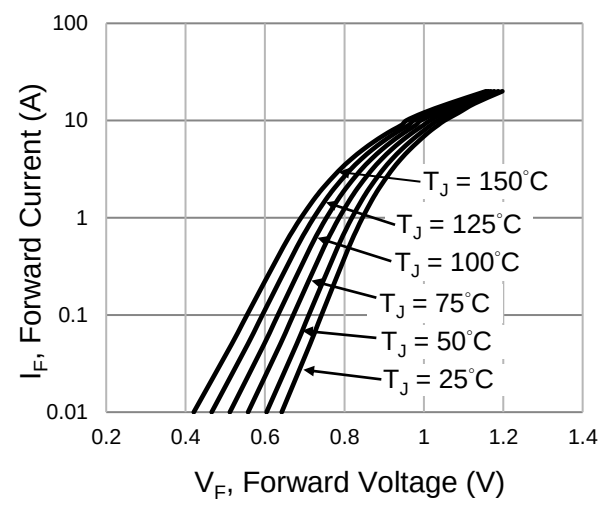


Fig.4 Typical Forward Characteristics

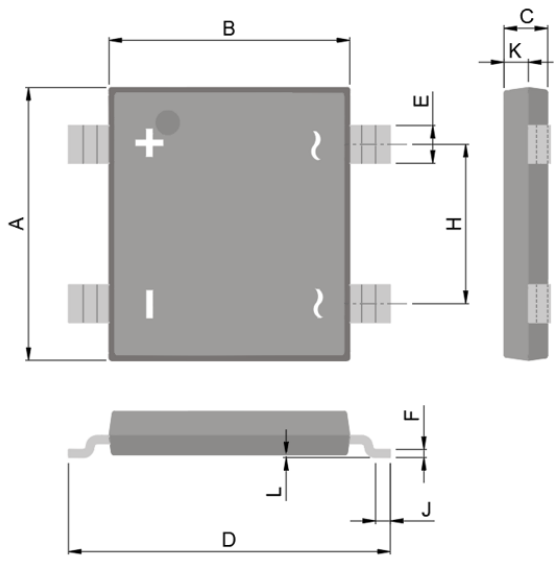
Part No. Marking Code Version

Approved Part No.	Package Type	Packing Type	Marking
PM610	M8	2K pcs / 13” reel	PM610

Packaging Information & Mounting Pad Layout

M8 Dimension

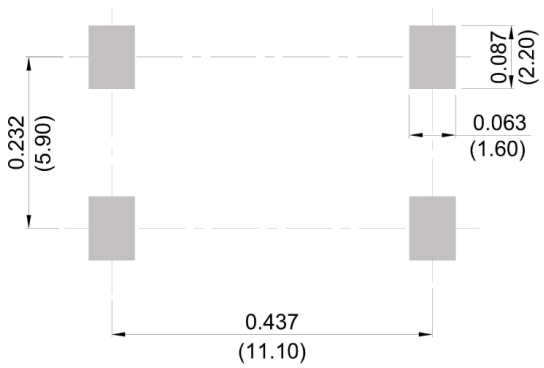
Unit: inch(mm)



M8 Dimension.Unit:Inch(mm)				
Dim	Unit (Inch)		Unit (mm)	
	Min	Max	Min	Max
A	0.392	0.404	9.95	10.25
B	0.344	0.356	8.75	9.05
C	0.059	0.067	1.51	1.71
D	0.461	0.476	11.70	12.10
E	0.049	0.061	1.25	1.55
F	0.008	0.016	0.20	0.40
H	0.228	0.236	5.80	6.00
J	0.022	0.041	0.55	1.05
K	0.032	0.040	0.81	1.01
L	0.000	0.006	0.00	0.15

M8 Pad Layout

Unit: inch(mm)



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