

## Surface Mount Glass Passivated Bridge Rectifier

**Voltage**

**1000 V**

**Current**

**4A**

**M6**

### 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

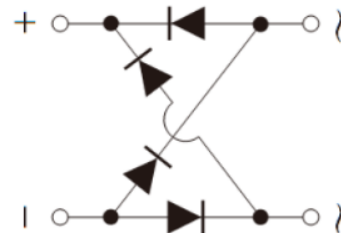


### Mechanical Data

- Case : M6 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.38 grams

### Application

- PD Charger
- Consumer Power Adapter
- NB Adapter
- TV Power



Key Parameters	
Parameter	Value
$V_{RRM}$	<b>1000V</b>
$I_F(AV)$	<b>4A</b>
$I_{FSM}$	<b>120A</b>
$I_R$	<b>5uA</b>
<b>Package</b>	<b>M6</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	$I_{F(AV)}$	4	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25\text{ }^{\circ}\text{C}$	120	A
	@ $T_A = 125\text{ }^{\circ}\text{C}$	96	
Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load	@ $T_A = 25\text{ }^{\circ}\text{C}$	240	A
	@ $T_A = 125\text{ }^{\circ}\text{C}$	192	
$I^2 t$ rating for fusing ( $t = 8.3\text{ms}$ )	$I^2 t$	60	$\text{A}^2\text{S}$
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$	$C_J$	37	pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	55	$^{\circ}\text{C/W}$
	$R_{\theta JL}$	10	
	$R_{\theta JC}$	5	
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	$V_F$	$I_F = 2\text{ A}, T_J = 25\text{ }^{\circ}\text{C}$	-	0.90	1.0	V
		$I_F = 2\text{ A}, T_J = 125\text{ }^{\circ}\text{C}$	-	0.80	-	
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, 35mmx25mmx1.7mm, 2oz copper pad area.

TYPICAL CHARACTERISTIC CURVES

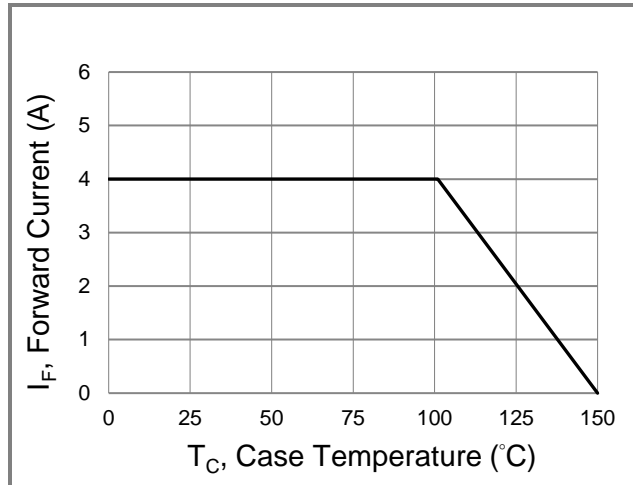


Fig.1 Forward Current Derating Curve

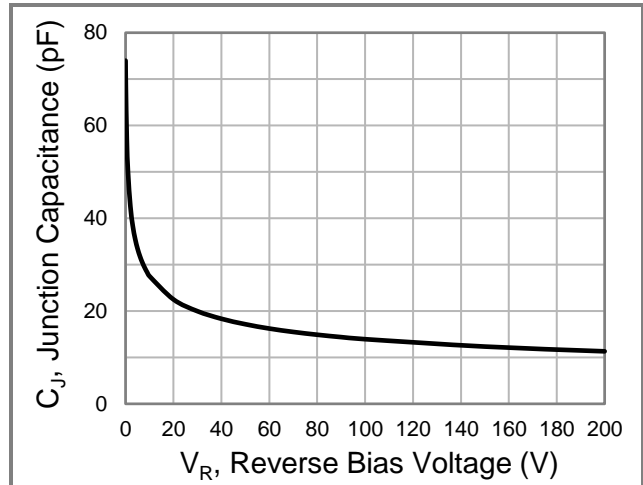


Fig.2 Typical Junction Capacitance

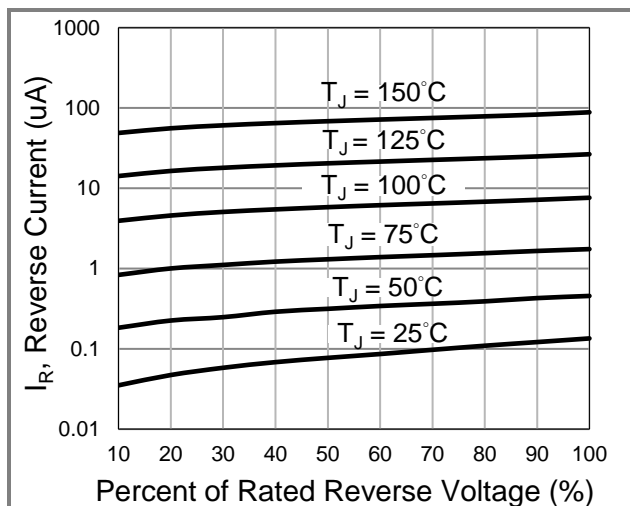


Fig.3 Typical Reverse Characteristics

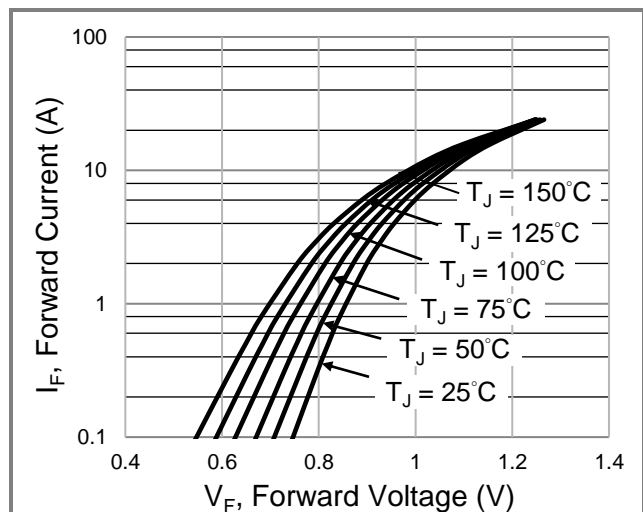


Fig.4 Typical Forward Characteristics

## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PMSM410	M6	1.8K pcs / 13" reel	PMSM410

## Packaging Information & Mounting Pad Layout

M6 Dimension

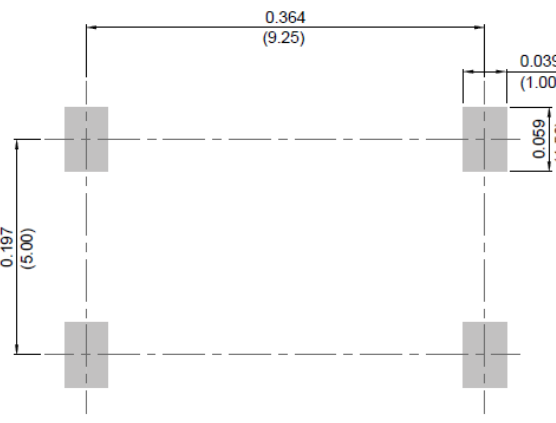
Unit: inch(mm)

The image contains three technical drawings of an M6 component:

- Side View (Left):** Shows the profile of the component with dimensions *E1* (total height), *A1* (height of the top flange), *r* (fillet radius), and *c* (bottom flange thickness).
- Top View (Center):** Shows the rectangular top surface with dimensions *D* (width), *m* (height), *b* (hole offset from side), and *e* (distance between holes). It also features a minus sign (-) on the left, a plus sign (+) on the right, and a circular feature on the right edge.
- Cross-sectional View (Bottom):** Shows the component's thickness with dimension *A*.

M6 Dimension.Unit:Inch (mm)

Dim	Unit (Inch)		Unit (mm)	
	Min	Max	Min	Max
A	0.055	0.071	1.40	1.80
A1	-	0.006	-	0.15
b	0.051	0.059	1.30	1.50
c	0.008	0.012	0.20	0.30
D	0.394	0.409	10.00	10.40
E	0.268	0.283	6.80	7.20
E1	0.382	0.398	9.70	10.10
e	0.193	0.201	4.90	5.10
L	0.02	0.043	0.50	1.10

M6 Pad Layout	Unit: inch(mm)
	

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