

# **Surface Mount Glass Passivated Bridge Rectifier**

er <u>M4</u>

Voltage

1000 V

Current

2A

## **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

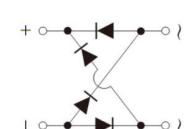
• Terminals : Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.29 grams

## **Application**

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

| Key Parameters      |       |  |  |
|---------------------|-------|--|--|
| Parameter           | Value |  |  |
| $V_{RRM}$           | 1000V |  |  |
| I <sub>F</sub> (AV) | 2A    |  |  |
| I <sub>FSM</sub>    | 70A   |  |  |
| I <sub>R</sub>      | 5uA   |  |  |
| Package             | M4    |  |  |





# **Maximum Ratings and Thermal Characteristics** (T<sub>A</sub> = 25 °C unless otherwise noted)

| PARAMETER  | SYMBOL                    | LIMIT              | UNITS   |                  |
|--|---------------------------|--------------------|---------|------------------|
| Maximum Repetitive Peak Reverse Voltage          |                           | V <sub>RRM</sub>   | 1000    | V                |
| Maximum RMS Voltage                              |                           | V <sub>RMS</sub>   | 700     | V                |
| Maximum DC Blocking Voltage                      |                           | V <sub>DC</sub>    | 1000    | V                |
| Maximum Average Forward Current                  |                           | I <sub>F(AV)</sub> | 2       | Α                |
| Peak Forward Surge Current : 8.3 ms              | @ T <sub>A</sub> = 25 °C  |                    | 70      |                  |
| Single Half Sine-Wave Superimposed On Rated Load | @ T <sub>A</sub> = 125 °C | I <sub>FSM</sub>   | 56      | _ A              |
| Peak Forward Surge Current : 1.0 ms              | @ T <sub>A</sub> = 25 °C  |                    | 140     |                  |
| Single Half Sine-Wave Superimposed On Rated Load | @ T <sub>A</sub> = 125 °C | IFSM               | 112     | A                |
| $I^2$ t rating for fusing (t = 8.3ms)            |                           | I²t                | 20.3    | A <sup>2</sup> S |
| Typical Junction Capacitance                     |                           |                    |         | _                |
| Measured at 1 MHZ And Applied $V_R = 4$          | CJ                        | 30                 | pF      |                  |
|  | R <sub>θ</sub> ЈА         | 32                 |         |                  |
| Typical Thermal Resistance (Note 1)              | R <sub>0JL</sub>          | 13                 | °C/W    |                  |
|  |                           | ReJc               | 14      |                  |
| Operating Junction Temperature Range             |                           | TJ                 | -55~150 | °C               |
| Storage Temperature Range                        | T <sub>STG</sub>          | -55~150            | °C      |                  |

# **Electrical Characteristics** (T<sub>A</sub> = 25 °C unless otherwise noted)

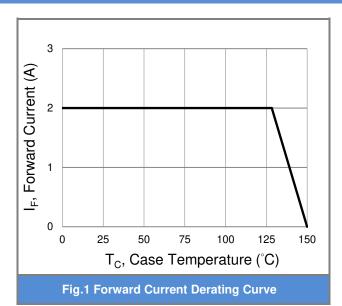
| PARAMETER       | SYMBOL         | TEST CONDITION                                  | MIN. | TYP. | MAX. | UNITS |  |
|-----------------|----------------|---|------|------|------|-------|--|
| Forward Voltage | V <sub>F</sub> | I <sub>F</sub> = 1 A, T <sub>J</sub> = 25 °C    | ı    | i    | 1.05 | ٧     |  |
| Reverse Current | I <sub>R</sub> | V <sub>R</sub> = 1000 V, T <sub>J</sub> = 25 °C | -    | -    | 5    |       |  |
|                 |                | V <sub>R</sub> = 1000 V,T <sub>J</sub> = 125 °C | -    | -    | 100  | uA    |  |

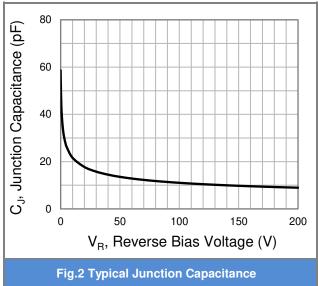
#### NOTES:

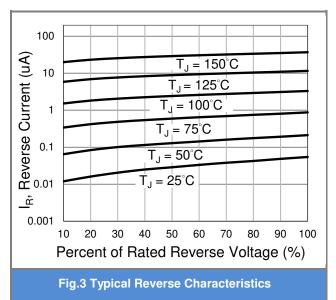
1. Mounted on a FR4,100x100x1.6mm ,2oz copper pad area.

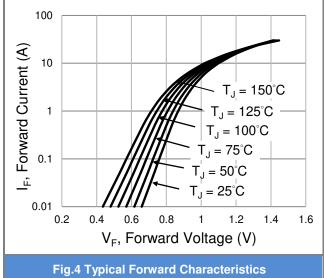


#### **TYPICAL CHARACTERISTIC CURVES**







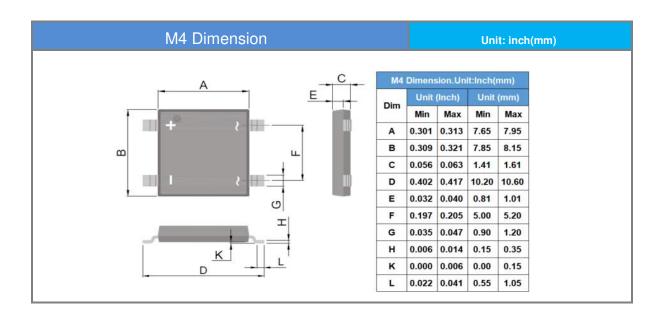


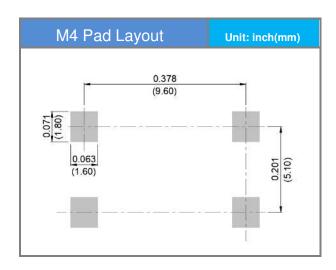


## Part No. Marking Code Version

| Approved Part No. | Package Type | Packing Type      | Marking |
|-------------------|--------------|-------------------|---------|
| PMS210            | M4           | 3K pcs / 13" reel | PMS210  |

## **Packaging Information & Mounting Pad Layout**







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