

# MSKSEMI 美森科

SEMICONDUCTOR



ESD



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PLED

## PMEG6010ELRX-MS

Product specification

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 60V

Forward Current - 1.0 A

## FEATURE

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

## MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:15mg 0.00048oz

## Reference News

| SOD-123FL                                                                         | Pin Configuration                                                                   | MARKING                                                                             |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |

## PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |

## Absolute Maximum Ratings and Electrical characteristics

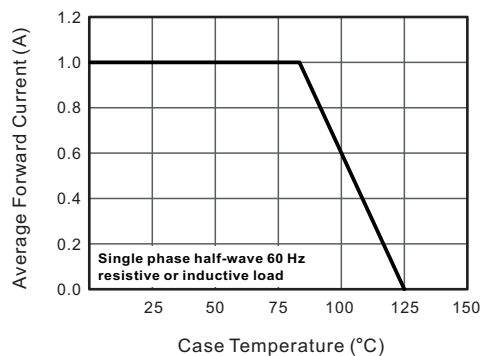
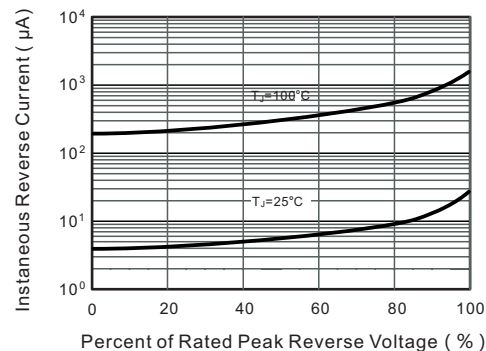
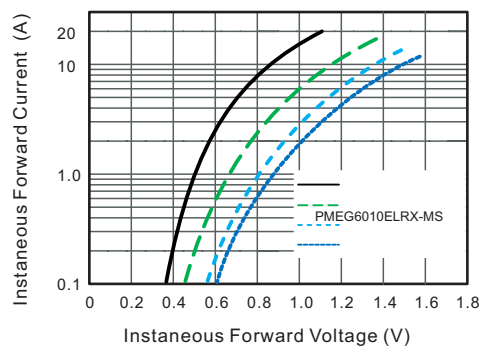
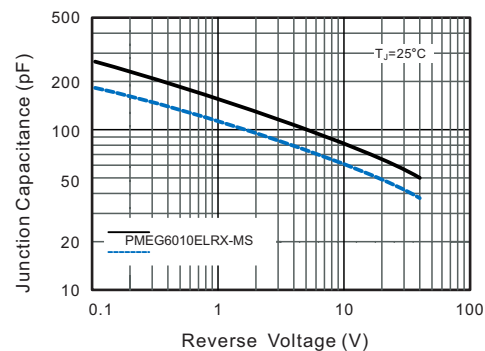
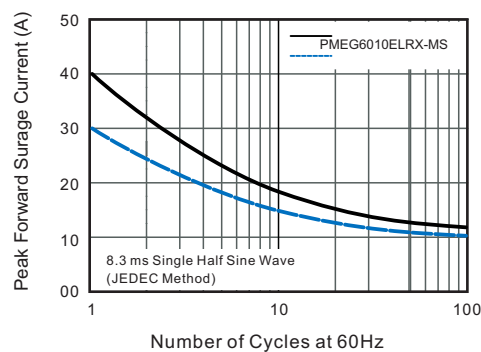
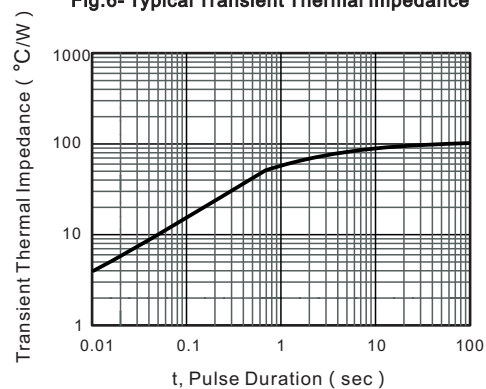
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase , half wave , 60Hz resistive or inductive load, for capacitive load, derate by 20 %

| Parameter                                                                                               | Symbols         | PMEG6010ELRX-MS | Units         |
|---------------------------------------------------------------------------------------------------------|-----------------|-----------------|---------------|
| Maximum Repetitive Peak Reverse Voltage                                                                 | $V_{RRM}$       | 60              | V             |
| Maximum RMS voltage                                                                                     | $V_{RMS}$       | 42              | V             |
| Maximum DC Blocking Voltage                                                                             | $V_{DC}$        | 60              | V             |
| Maximum Average Forward Rectified Current                                                               | $I_{F(AV)}$     | 1.0             | A             |
| Peak Forward Surge Current ,8.3ms<br>Single Half Sine-wave Superimposed<br>on Rated Load (JEDEC method) | $I_{FSM}$       | 30              | A             |
| Max Instantaneous Forward Voltage at 1 A                                                                | $V_F$           | 0.70            | V             |
| Maximum DC Reverse Current $T_a = 25^{\circ}C$<br>at Rated DC Reverse Voltage $T_a = 100^{\circ}C$      | $I_R$           | 0.3<br>10       | mA            |
| Typical Junction Capacitance ( 1 )                                                                      | $C_j$           | 80              | pF            |
| Typical Thermal Resistance ( 2 )                                                                        | $R_{\theta JA}$ | 100             | $^{\circ}C/W$ |
| Operating Junction Temperature Range                                                                    | $T_j$           | -55 ~ +125      | $^{\circ}C$   |
| Storage Temperature Range                                                                               | $T_{stg}$       | -55 ~ +150      | $^{\circ}C$   |

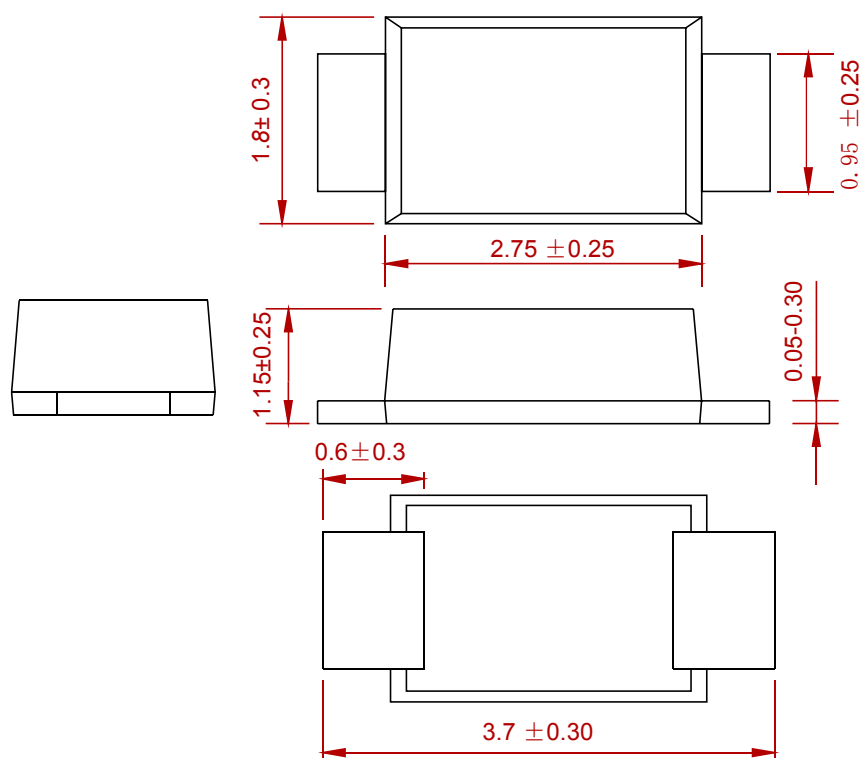
( 1 ) Measured at 1 MHz and applied reverse voltage of 4 V D.C

( 2 ) P.C.B . mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas .

## ELECTRICAL CHARACTERISTICS CURVE

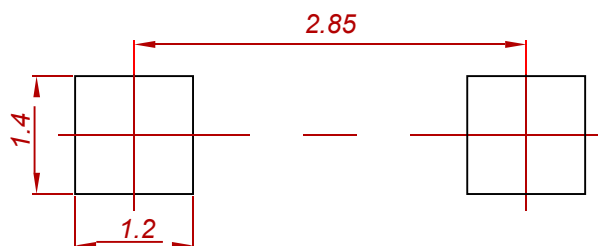
**Fig.1 Forward Current Derating Curve**

**Fig.2 Typical Reverse Characteristics**

**Fig.3 Typical Forward Characteristic**

**Fig.4 Typical Junction Capacitance**

**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**

**Fig.6- Typical Transient Thermal Impedance**


## PACKAGE MECHANICAL DATA



*Dimensions in millimeters*

## Suggested Pad Layout



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$  mm.
3. The pad layout is for reference purposes only.

## REEL SPECIFICATION

| P/N             | PKG       | QTY  |
|-----------------|-----------|------|
| PMEG6010ELRX-MS | SOD-123FL | 3000 |

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