

# MSKSEMI 美森科

SEMICONDUCTOR



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PLED

## **PMEG3020EH-MS**

Product specification

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 30V

Forward Current - 2.0A

## 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℃ ambient temperature unless otherwise specified.Single phase , half wave , 60Hz resistive or inductive load, for capacitive load, derate by 20 %

| Parameter                                                                                               | Symbols         | PMEG3020EH-MS | Units |
|---------------------------------------------------------------------------------------------------------|-----------------|---------------|-------|
| Maximum Repetitive Peak Reverse Voltage                                                                 | $V_{RRM}$       | 30            | V     |
| Maximum RMS voltage                                                                                     | $V_{RMS}$       | 21            | V     |
| Maximum DC Blocking Voltage                                                                             | $V_{DC}$        | 40            | V     |
| Maximum Average Forward Rectified Current                                                               | $I_{F(AV)}$     | 2.0           | A     |
| Peak Forward Surge Current ,8.3ms<br>Single Half Sine-wave Superimposed<br>on Rated Load (JEDEC method) | $I_{FSM}$       | 50            | A     |
| Max Instantaneous Forward Voltage at 2 A                                                                | $V_F$           | 0.55          | V     |
| Maximum DC Reverse Current $T_a = 25^{\circ}C$<br>at Rated DC Reverse Voltage $T_a = 100^{\circ}C$      | $I_R$           | 0.5<br>5      | mA    |
| Typical Junction Capacitance ( 1 )                                                                      | $C_j$           | 220           | pF    |
| Typical Thermal Resistance ( 2 )                                                                        | $R_{\theta JA}$ | 80            | ℃/W   |
| Operating Junction Temperature Range                                                                    | $T_j$           | -55 ~ +125    | ℃     |
| Storage Temperature Range                                                                               | $T_{stg}$       | -55 ~ +150    | ℃     |

( 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

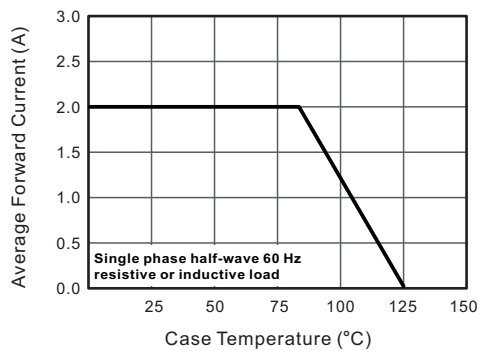


Fig.2 Typical Reverse Characteristics

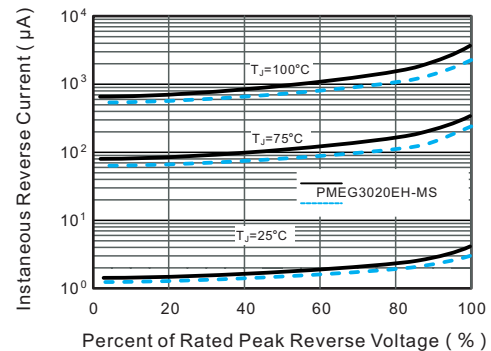


Fig.3 Typical Forward Characteristic

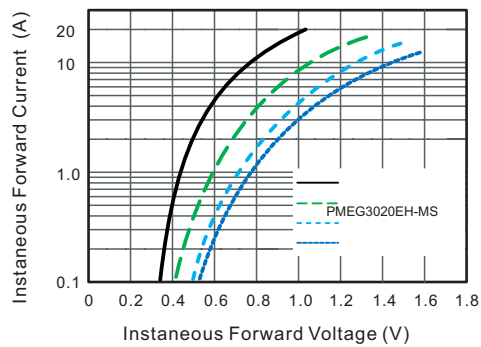


Fig.4 Typical Junction Capacitance

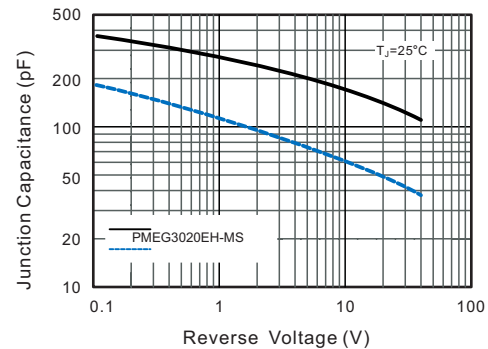


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

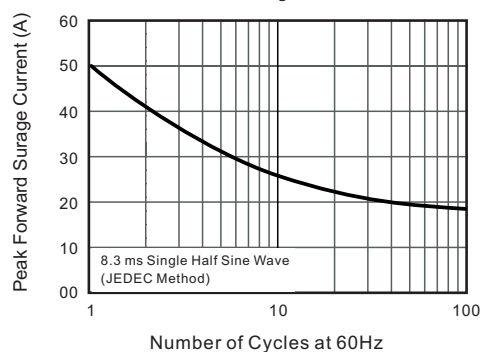
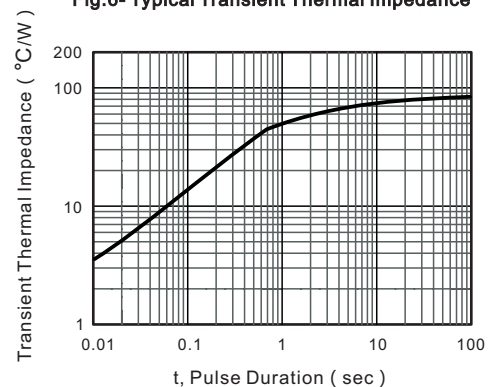
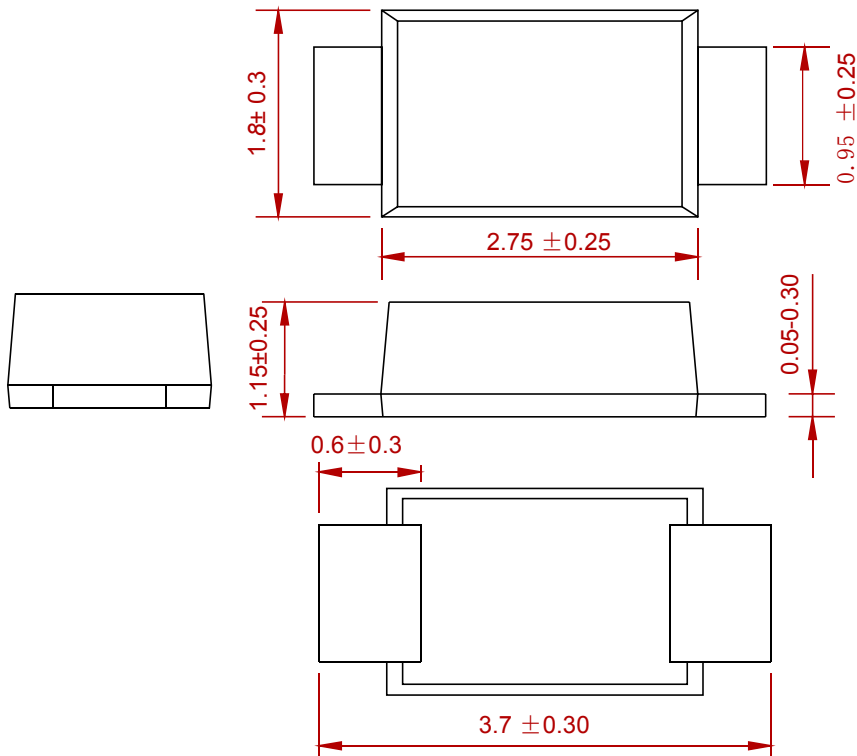


Fig.6- Typical Transient Thermal Impedance

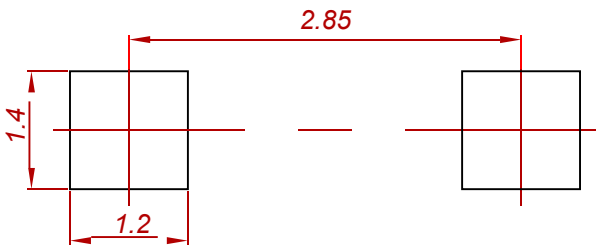


PACKAGE MECHANICAL DATA



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  |
|---------------|-----------|------|
| PMEG3020EH-MS | SOD-123FL | 3000 |

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