EVVOSEMI®
THINK CHANGE DO

ESD TVS MOS LDO Diode Sensor DC-DC

# Product Specification

| | |
|---|---|
| Domestic Part Number | PMEG6010ER |
| Overseas Part Number | PMEG6010ER |
| Equivalent Part Number | PMEG6010ER |

**Surface Mount Schottky Barrier Rectifier**
**Reverse Voltage - 60 V Forward Current - 1.0 A**

**PINNING**

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


Weight : 17mg , 0.0006 oz
Simplified outline SOD-123FL and symbol

## FEATURES

- 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

### 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 | | 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 Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$ | 40 | A |
| Max Instantaneous Forward Voltage at 1 A | $V_F$ | 0.70 | V |
| Maximum DC Reverse Current $T_a$ = 25°C<br>at Rated DC Reverse Voltage $T_a$ =100°C | $I_R$ | 0.3<br>10 | mA |
| Typical Junction Capacitance 1) | $C_j$ | 80 | pF |
| Typical Thermal Resistance 2) | $R_{\theta JA}$ | 115 | °C/W |
| Operating Junction Temperature Range | $T_j$ | -55 ~ +125 | °C |
| Storage Temperature Range | $T_{stg}$ | -55 ~ +150 | °C |

1) Measured at 1MHz and applied reverse voltage of 4 V D.C.
2) P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

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**Fig.1 Forward Current Derating Curve**

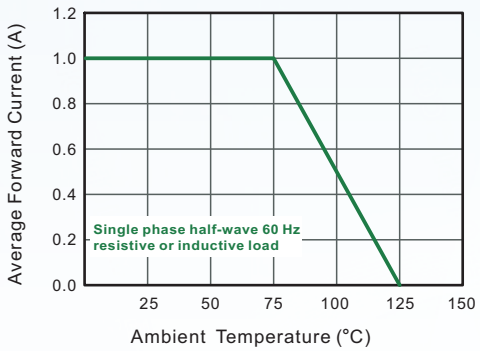



**Fig.2 Typical Reverse Characteristics**

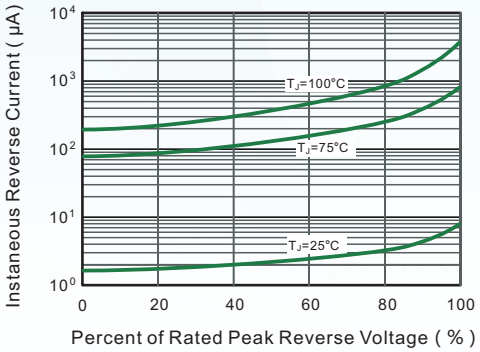



**Fig.3 Typical Forward Characteristic**

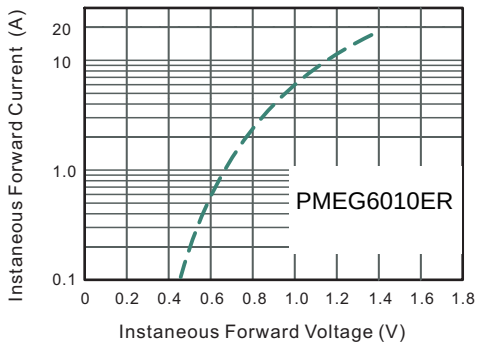



**Fig.4 Typical Junction Capacitance**

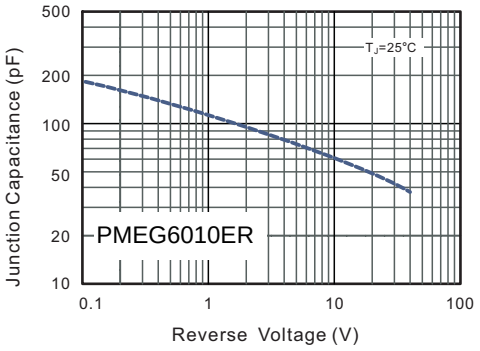



**Fig.5 Maximum Non-Repetitive Peak Forward Surage Current**

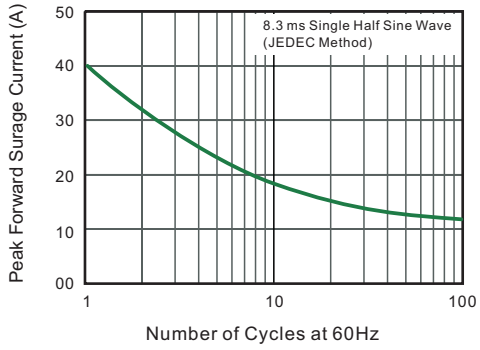
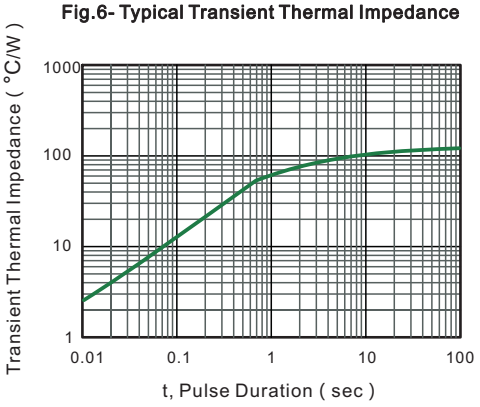


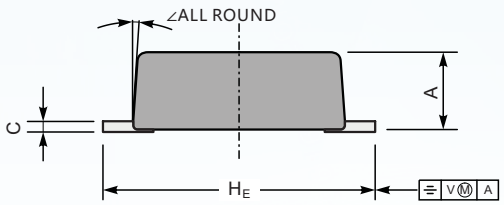

**Fig.6- Typical Transient Thermal Impedance**

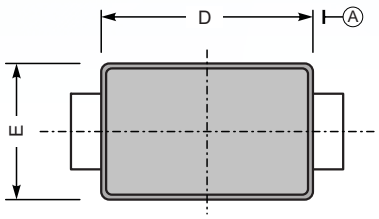


## PACKAGE OUTLINE

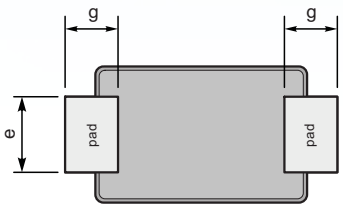
SOD-123FL

**Plastic surface mounted package; 2 leads**



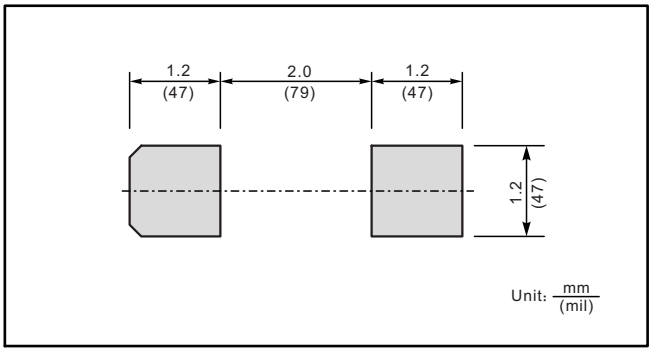

Top View




Bottom View

| UNIT | | A | C | D | E | e | g | $H_E$ | ∠ |
|---|---|---|---|---|---|---|---|---|---|
| mm | max | 1.1 | 0.20 | 2.9 | 1.9 | 1.1 | 0.9 | 3.8 | 7° |
| | min | 0.9 | 0.12 | 2.6 | 1.7 | 0.8 | 0.7 | 3.5 | |
| mil | max | 43 | 7.9 | 114 | 75 | 43 | 35 | 150 | |
| | min | 35 | 4.7 | 102 | 67 | 31 | 28 | 138 | |

**The recommended mounting pad size**



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