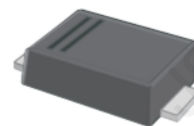


## Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260 °C/10 seconds at terminals
- ◆ Compliant to RoHS 2.0
- ◆ Compliant to Halogen-free



SOD-128

## Mechanical data

- ◆ **Case:** JEDEC SOD-128 molded plastic body
- ◆ **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

- ◆ **Polarity:** Color band denotes cathode end
- ◆ **Mounting Position:** Any

## Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

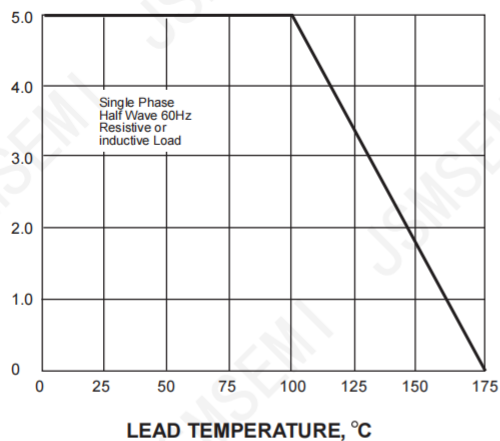
PARAMETER	SYMBOLS	PMEG10030ELPX-JSM	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	V
Maximum RMS voltage	$V_{RMS}$	70	V
Maximum DC blocking voltage	$V_{DC}$	100	V
Maximum average forward rectified current at $T_L$ (see fig.1)	$I_{(AV)}$	3.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	100	A
Maximum instantaneous forward voltage at 3.0A	$V_F$	0.77	V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	$I_R$	0.05	mA
		1.50	
Typical junction capacitance (NOTE 1)	$C_J$	360	pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	60	C/W
Operating junction temperature range	$T_J$	-55 to +175	C
Storage temperature range	$T_{STG}$	-55 to +175	C

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 2. P.C.B. mounted with 2.0x2.0" (5.0x5.0cm) copper pad areas

## Rating and characteristic curves

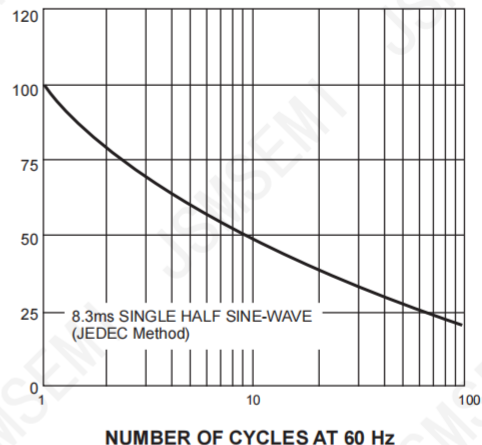
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



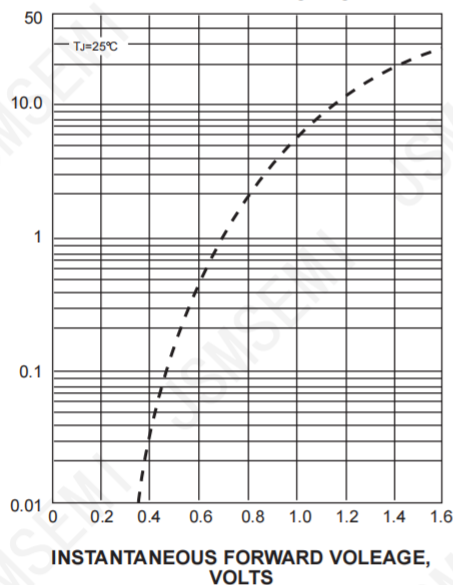
PEAK FORWARD SURGE CURRENT,  
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



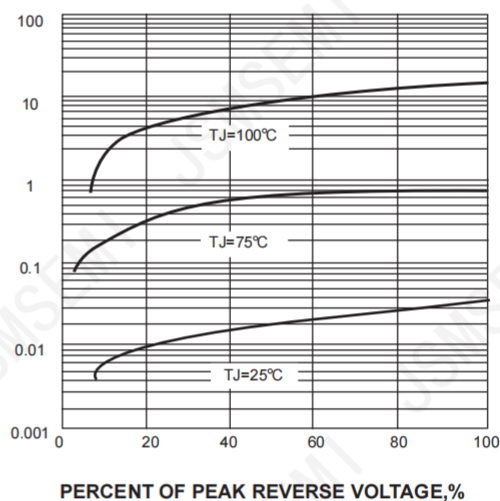
INSTANTANEOUS FORWARD  
CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



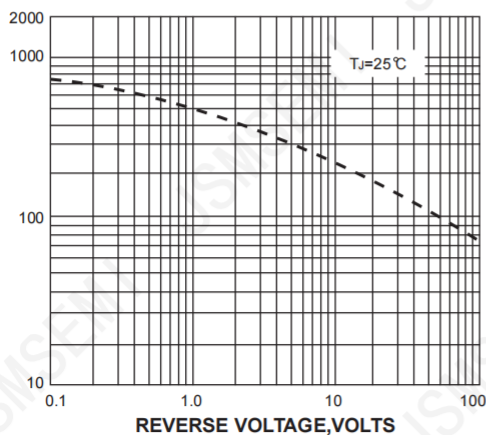
INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



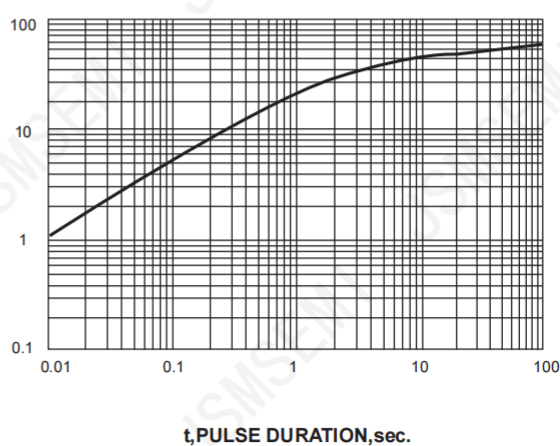
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

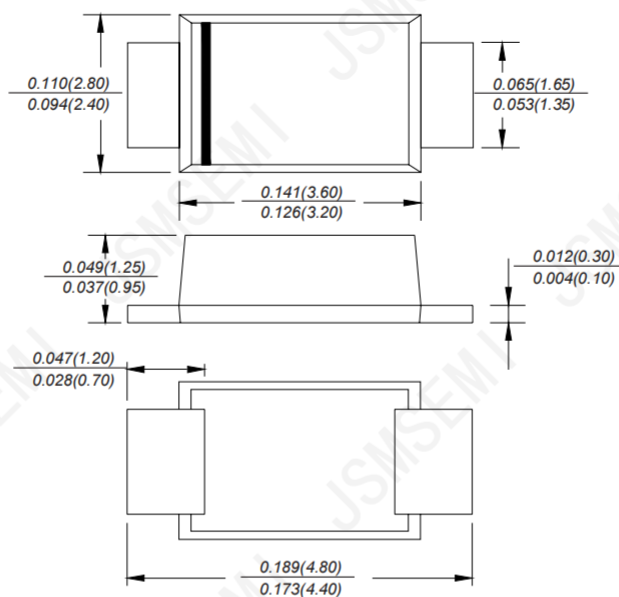


TRANSIENT THERMAL IMPEDANCE,  
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

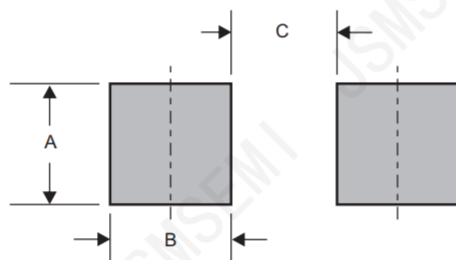


Package outline  
SOD-128



Dimensions in inches and (millimeters)

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-128	0.110 (2.80)	0.063 (1.60)	0.087 (2.20)

## Revision History

Rev.	Change	Date
V1.0	Initial version	6/27/2021

## Important Notice

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