

Features

- Low profile package
- Ideal for automated placement
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC



SOD-123

Mechanical Date

- **Case:** SOD-123 molded plastic
- **Terminals:** Solder plated, solderable per
JESD22-B102D
- **Polarity:** Laser band denotes cathode end

Major Ratings and Characteristics

$I_{F(AV)}$	0.5A
V_{RRM}	40V
I_{FSM}	25A
V_F	0.55
$T_J \text{ max.}$	125 °C

Maximum Ratings & Thermal Characteristics

($T_A = 25\text{ °C}$ unless otherwise noted)

Items	Symbol	PMEG4005EH,115-JSM	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC blocking voltage	V_{DC}	40	V
Maximum average forward rectified current	$I_{F(AV)}$	0.5	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	25	A
Thermal resistance from junction to lead ⁽¹⁾	$R_{\theta JL}$	20	°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +125	°C

Note 1: Mounted on P.C.B. with 0.036 x 0.06" (0.9 x 1.5mm) copper pad areas.

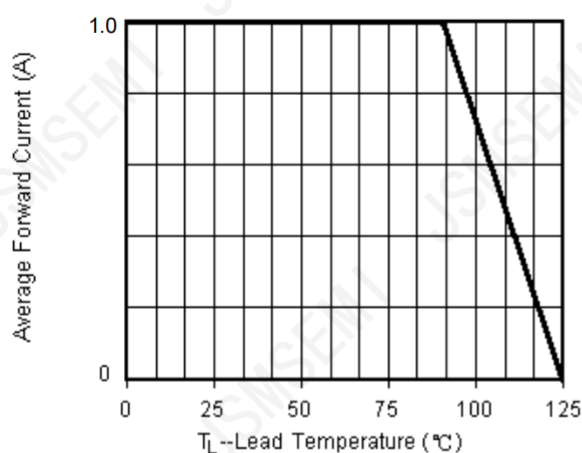
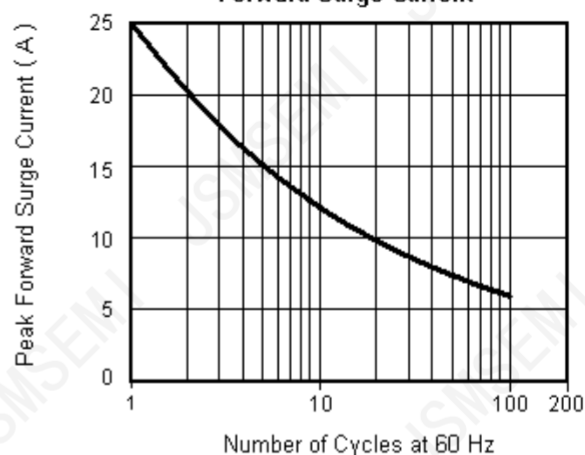
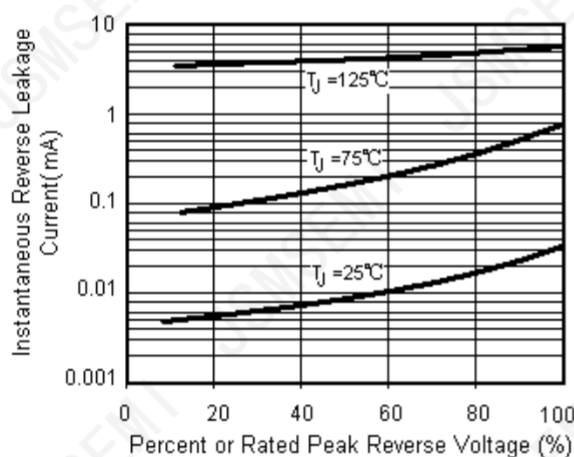
Electrical Characteristics

($T_A = 25\text{ °C}$ unless otherwise noted)

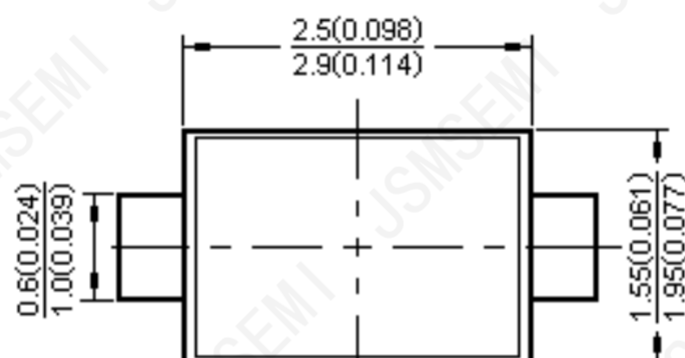
Items	Test conditions	Symbol	PMEG4005EH,115-JSM	UNIT
Instantaneous forward voltage	$I_F = 1.0A^{(2)}$	V_F	0.55	V
Reverse current	$V_R = V_{DC}$	I_R	0.5	mA
	$T_J = 100\text{ °C}$		5.0	

Note 2: Pulse test:300μs pulse width,1% duty cycle.

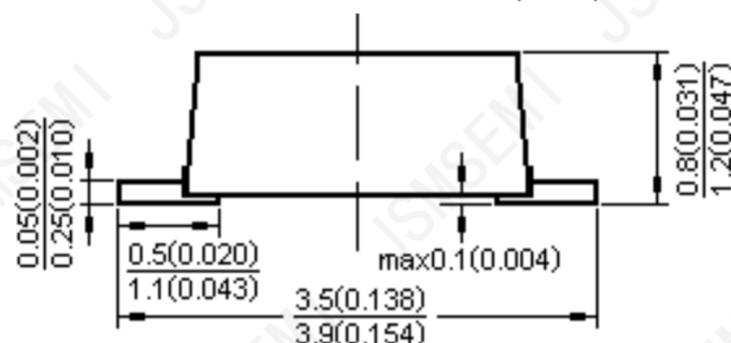
Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Forward Current Derating Curve

Maximum Non-Repetitive Peak Forward Surge Current

Typical Reverse Leakage Characteristics


SOD-123FL



Dimensions in millimeters and (inches)



Revision History

Rev.	Change	Date
V1.0	Initial version	2/23/2024

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