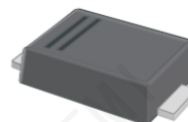


## Description

The PMEG3050BEP,115-JSM are surface mount Schottky barrier rectifiers designed to offer reliable performance in various electronic applications. These rectifiers feature a metal-silicon junction with majority carrier conduction, enabling low power loss and high efficiency. With reverse voltage ranging from 20V to 200V and a forward current of 3.0A, they are well-suited for use in low voltage, high frequency scenarios. Their surface mount design makes them convenient for integration into modern circuit layouts, while their high forward surge current capability ensures robustness in demanding operating conditions.



## Features

- Metal silicon junction with majority carrier conduction
- Suitable for surface mounted applications
- Low power loss and high efficiency
- High forward surge current capability
- RoHS compliant
- SMAF package with 2 leads

## Applications

- Low voltage, high frequency
- inverters Free wheeling circuits
- Polarity protection applications
- Power supplies
- DC-DC converters
- Battery charging systems

## Ordering Information

Order number	Package	Operation Temperature Range	MSL Grade	Ship, Quantity	Green
PMEG3050BEP,115-JSM	SOD-128	-55 ~ +125°C	3	T&R,3000	RoHS

## 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 current derate by 20%.

Parameter	Symbols	PMEG3050BEP,115-JSM	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	$I_{F(AV)}$	3.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	80	A
Max Instantaneous Forward Voltage at 3 A	$V_F$	0.70	V
Maximum DC Reverse Current at Rated DC Reverse Voltage Ta = 25°C Ta = 100°C	$I_R$	0.3 5	mA
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	160	pF
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$	40	°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.

## Typical Performance Curves

Fig.1 Forward Current Derating Curve

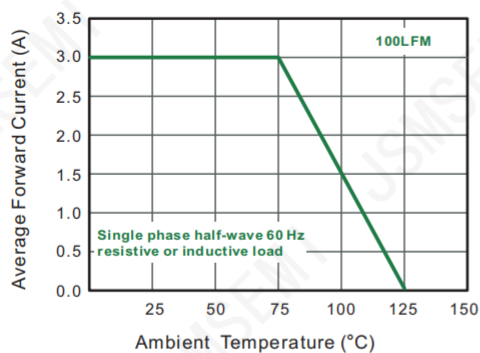


Fig.2 Typical Reverse Characteristics

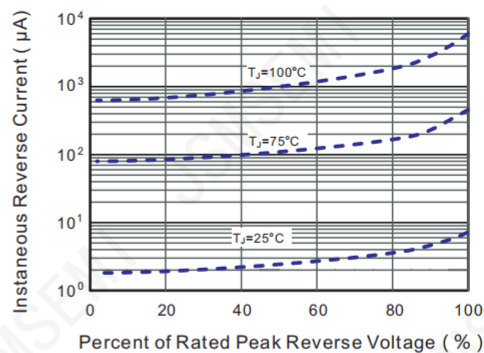


Fig.3 Typical Forward Characteristic

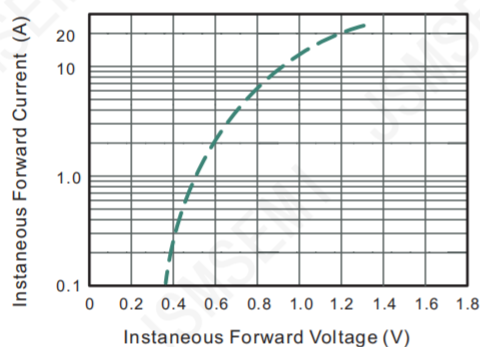


Fig.4 Typical Junction Capacitance

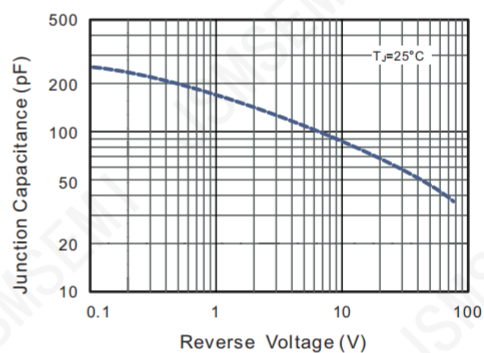


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

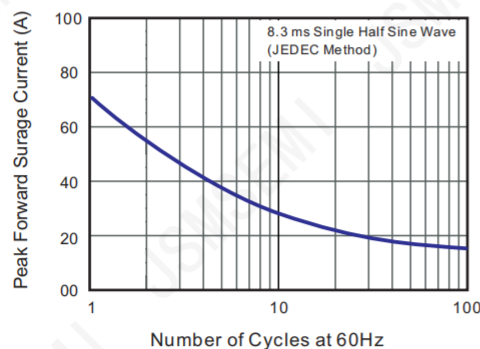
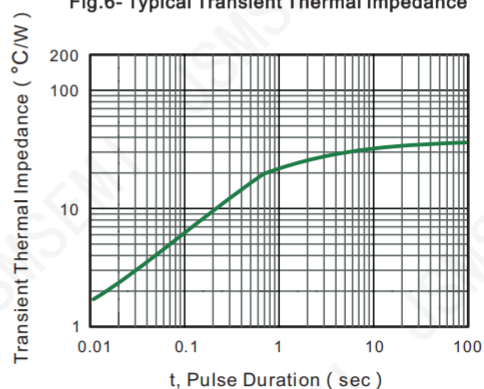
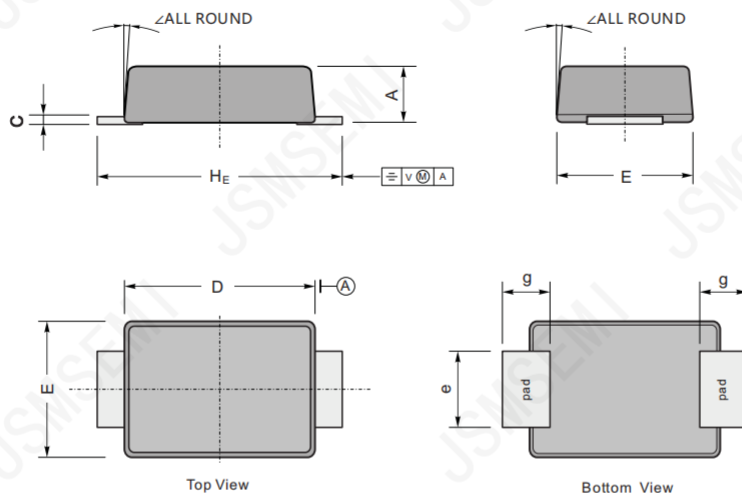


Fig.6- Typical Transient Thermal Impedance



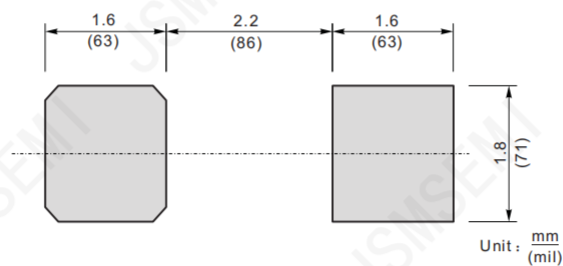
## Package Outline Dimensions



Plastic surface mounted package; 2 leads

UNIT		A	C	D	E	e	g	H <sub>E</sub>	∠
mm	max	1.1	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	43	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	

## The recommended mounting pad size



## Revision History

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

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