PMEG6020ER

Surface Mount Schottky Barrier Rectifier

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Top View
Simplified outline SOD-123FL and symbol

Marking:BC

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		Symbol	Limit	Unit
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		$I_{F(AV)}$	2.0	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	50	A
Peak Forward Surge Current,1.0ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	100	A
I^2t Rating for fusing (3ms≤t≤8.3ms)		I^2t	10.3	A
Max Instantaneous Forward Voltage at 2 A		V_F	0.70	V
Maximum DC Reverse Current at Rated DC Reverse Voltage	T_A=25℃	I_R	0.5	mA
	T_A=100℃		5	mA
Typical Junction Capacitance(1)		C_J	70	pF
Typical Thermal Resistance(2)		$R_{\theta JA}$	105	℃/W
		$R_{\theta JC}$	25	℃/W
		$R_{\theta JL}$	32	℃/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" * 2.0" (5 * 5 mm) copper pad areas.

Typical Characteristics

Fig.1 Forward Current Derating Curve

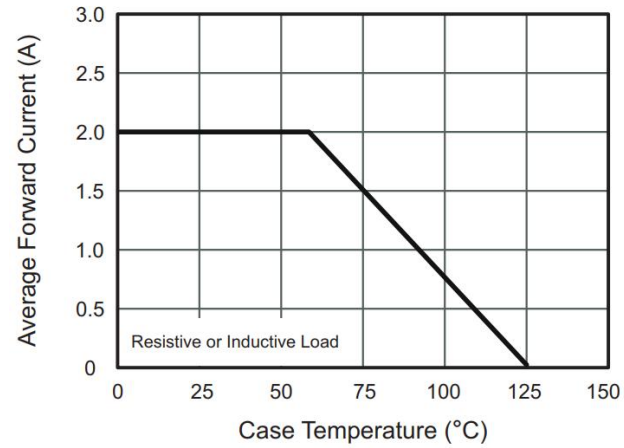


Fig.2 Typical Reverse Characteristics

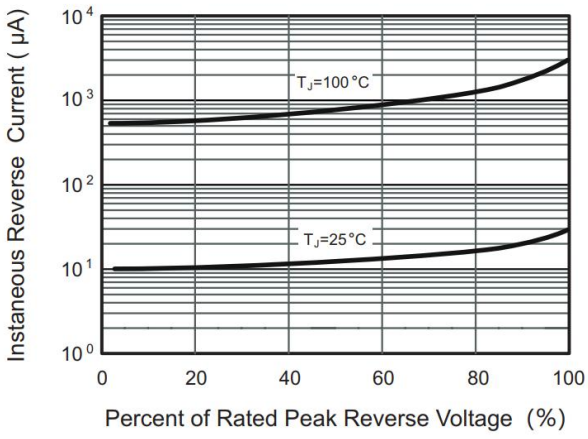


Fig.3 Typical Forward Characteristic

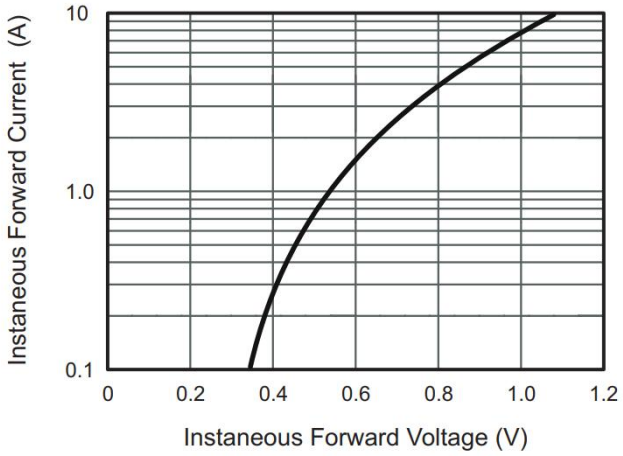


Fig.4 Typical Junction Capacitance

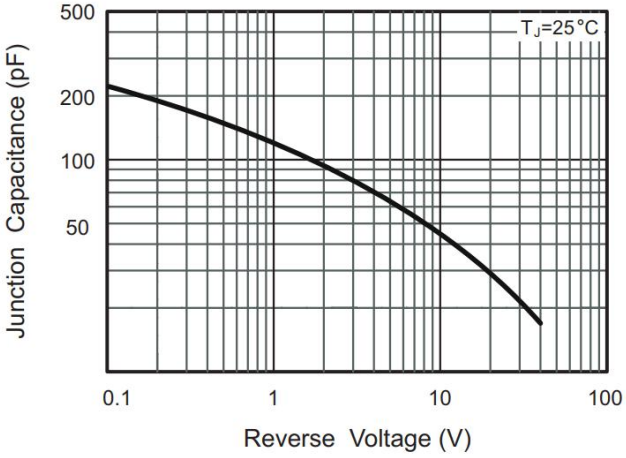
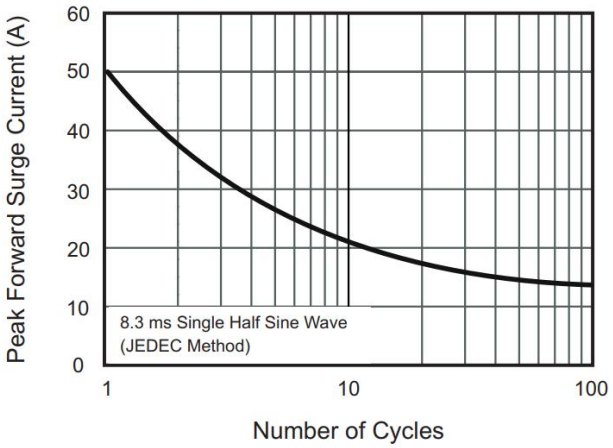


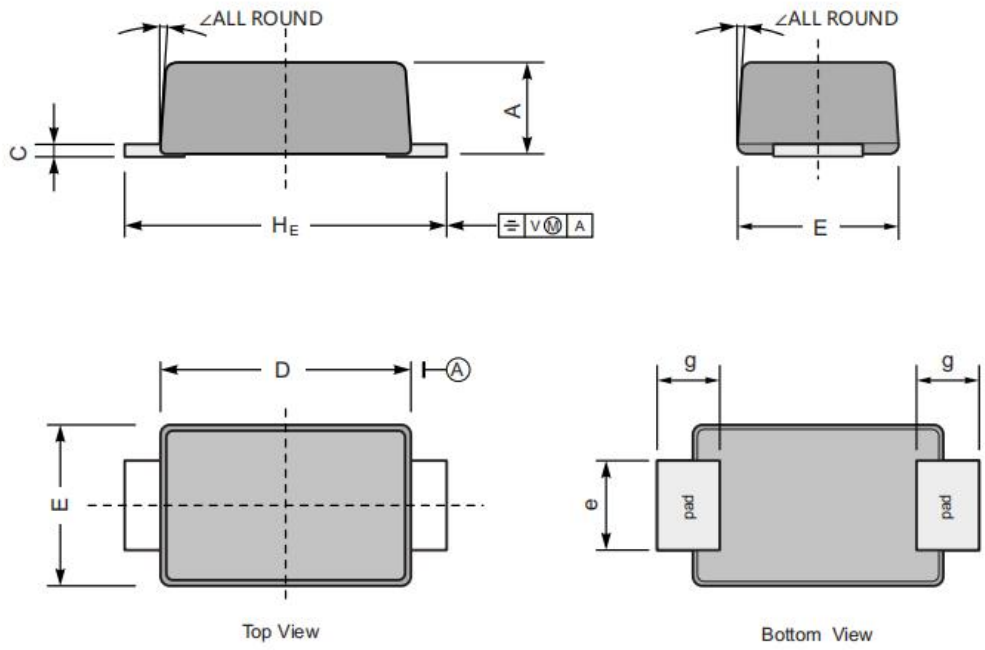
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Package Information

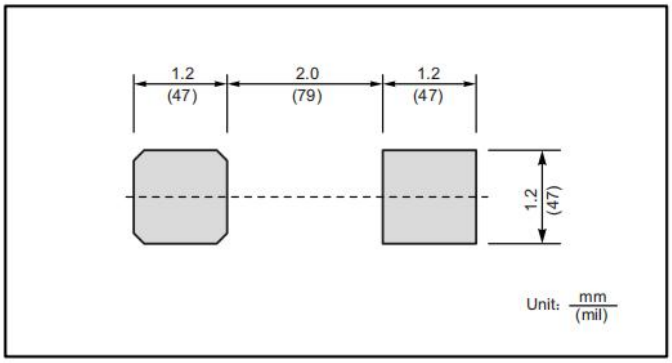
SOD-123FL

Dimensions in mm



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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