DESCRIPTION

The PMEG3020ER is available in SOD-123FL package

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
- Available in SOD-123FL package

ORDERING INFORMATION

Package Type	Part Number
SOD-123FL	PMEG3020ER
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

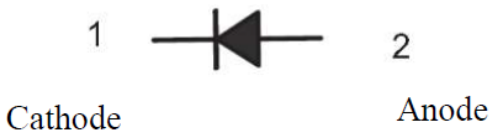
MECHANICAL DATA

Case: SOD-123FL

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight:15mg 0.00048oz

PIN DESCRIPTION



ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃Cambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter		Symbol		Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	30	V
Maximum RMS Voltage		V_{RMS}	28	V
Maximum DC Blacking Voltage		V_{DC}	40	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
Max Instantaneous Forward Voltage at 2A		V_F	0.55	V
Maximum DC Reverse Current at Rated DC Reverse Voltage	T_A=25°C T_A=100°C	I_R	0.5 5	mA
Typical Junction Capacitance[NOTE1]		C_J	220	pF
Typical Thermal Resistance[NOTE2]		$R_{\theta JA}$	80	°C/W
Operating Junction Temperature Range		T_J	-55~+125	°C
Storage Temperature Range		T_{STG}	-55~+150	°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

NOTE1: Measured at 1MHz and applied reverse voltage of 4VD.C.

NOTE2: P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

TYPICAL CHARACTERISTICS

Figure 1. Forward Current Derating Curve

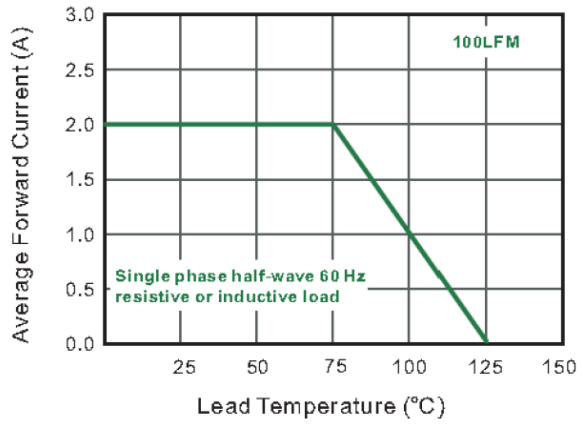


Figure 2. Typical Reverse Characteristics

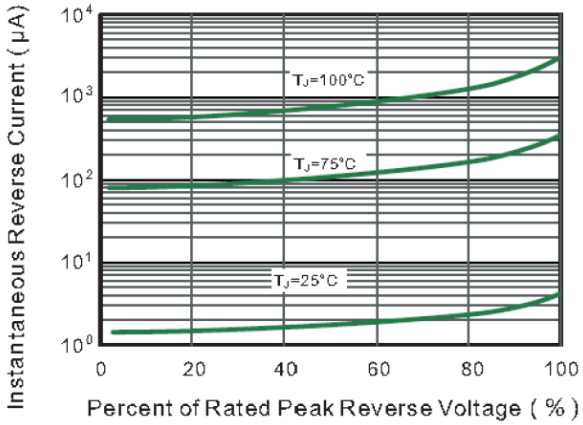


Figure 3. Typical Forward Characteristic

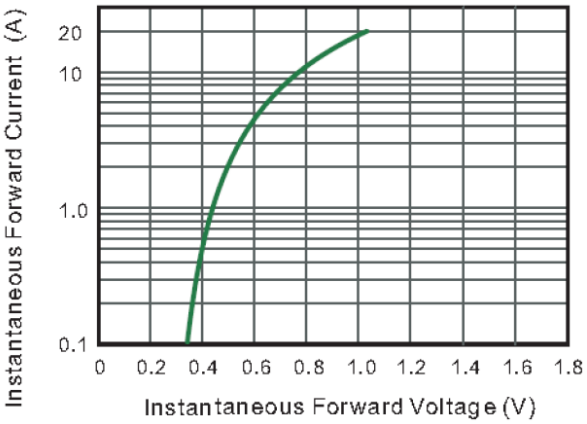


Figure 4. Typical Junction Capacitance

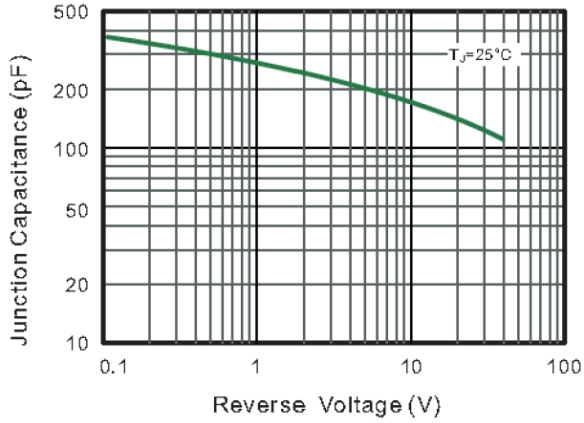


Figure 5. Maximum Non-Repetitive Peak Forward Surge Current

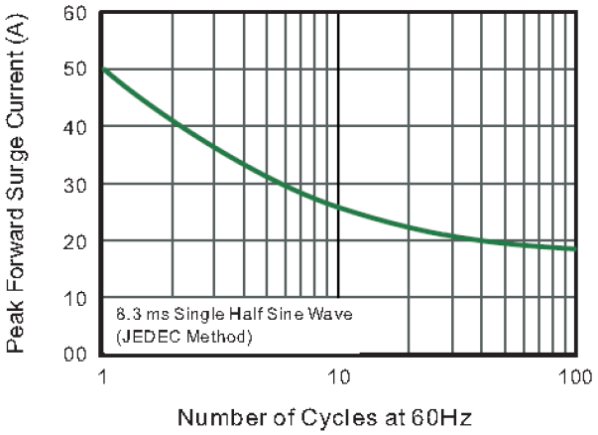
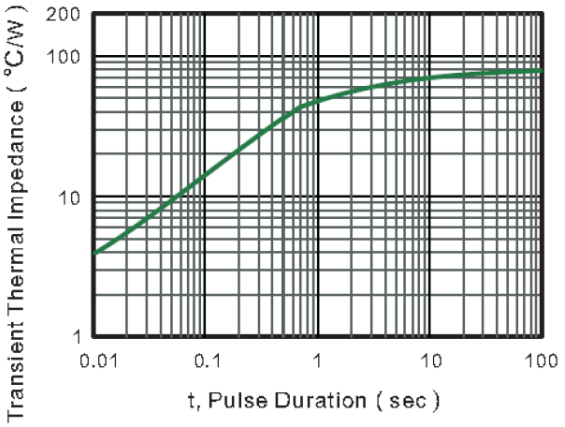


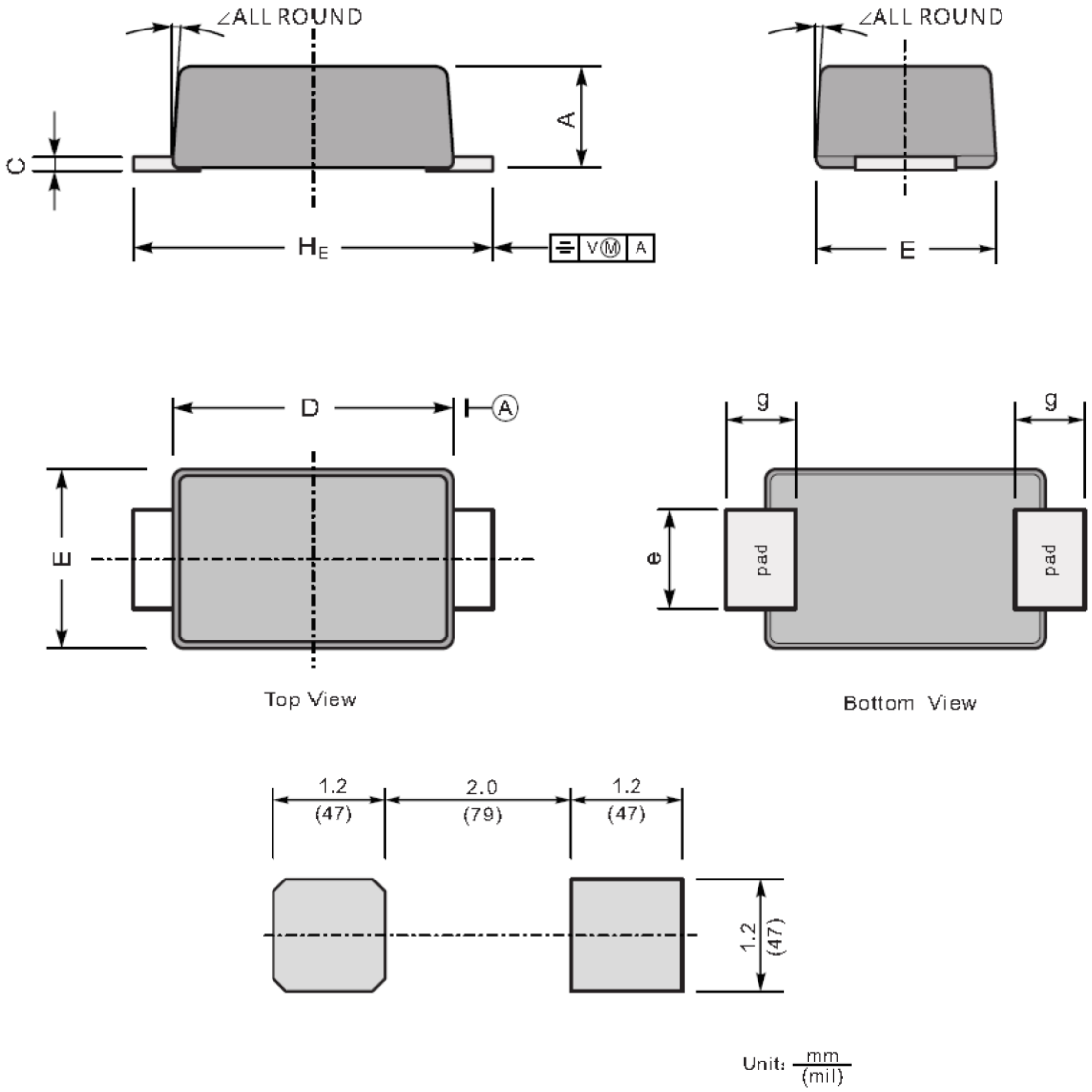
Figure 6. Typical Transient Thermal Impedance



PACKAGE INFORMATION

Dimension in SOD-123FL (Unit: mm)

Plastic surface mounted package; 2 leads



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	

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