

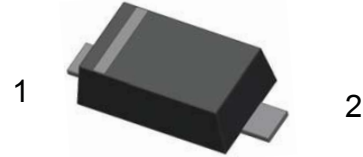
Schottky barrier rectifiers

PMEG1030EJ

■ Features

- Forward current: 3 A
- Reverse voltage: 10 V
- Ultra low forward voltage
- Small and flat lead SMD package

SOD-323F



Top View

PIN DESCRIPTION

PIN	DESCRIPTION
1	Cathode
2	Anode

■ Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise specified.

Parameter	Symbol	Value	Unit
Reverse voltage	V_R	10	V
Forward current	I_F	3	A
Repetitive peak forward current	I_{FRM}	5.5	
Non-repetitive peak forward current	I_{FSM}	9	
Thermal resistance from junction to ambient	$R_{\theta JA}$	350	$^\circ\text{C}/\text{W}$
		150	
Thermal resistance from junction to solder point	$R_{\theta JS}$	55	
Total power dissipation	P_{tot}	360	mW
		830	
Junction temperature	T_J	150	$^\circ\text{C}$
Storage temperature	T_{STG}	-55 to +150	

Note: 1. Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided copper, tin-plated and standard footprint.

2. Device mounted on an FR4 PCB, single-sided copper, tin-plated, mounting pad for cathode 1 cm^2 .■ Electrical Characteristics $T_a = 25^\circ\text{C}$ unless otherwise specified.

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	$I_R = 100\ \mu\text{A}$	10			V
Forward voltage (Note 1)	V_F	$I_F = 0.01\text{A}$			130	mV
		$I_F = 0.1\text{A}$			200	
		$I_F = 1\text{A}$			350	
		$I_F = 3\text{A}$			530	
Reverse current	I_R	$V_R = 5\text{V}$			2	mA
		$V_R = 8\text{V}$			2.5	
		$V_R = 10\text{V}$			3	
Diode capacitance	C_D	$V_R = 1\text{V}$, $f = 1\text{MHz}$		70		pF

Note 1. Pulse test: $t_p = 300\ \mu\text{s}$; $\delta = 0.02$.

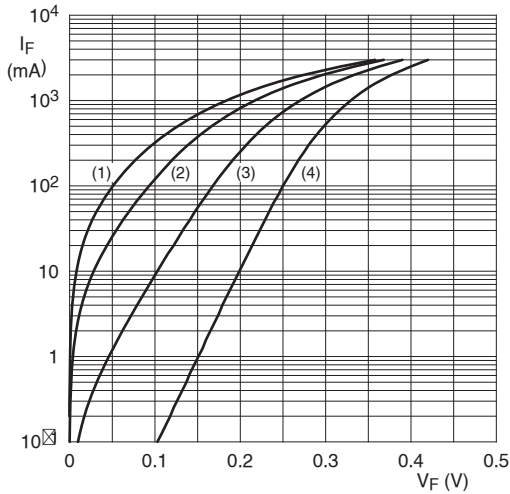
■ Marking

Marking	E7
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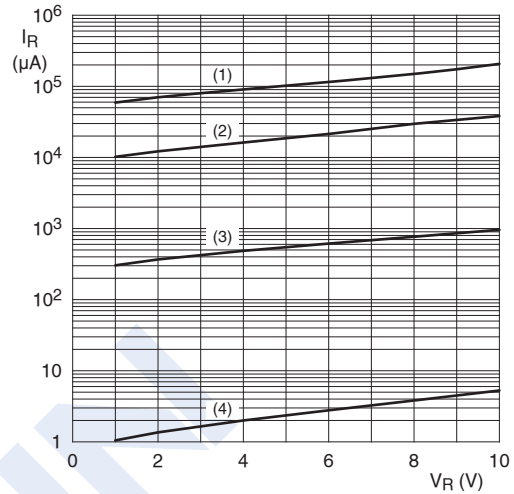
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■ Typical Characteristics



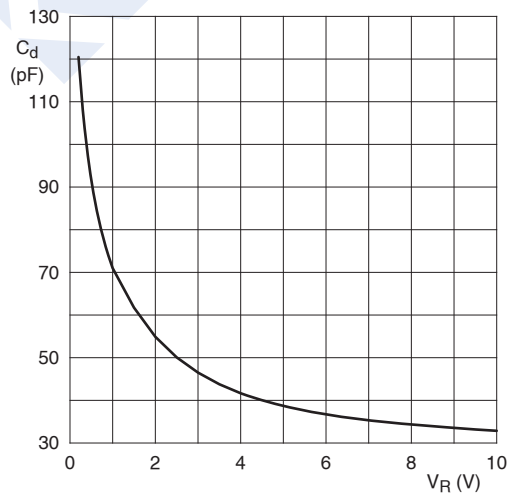
- (1) $T_{amb} = 125\text{ °C}$
- (2) $T_{amb} = 85\text{ °C}$
- (3) $T_{amb} = 25\text{ °C}$
- (4) $T_{amb} = -40\text{ °C}$

Fig 1. Forward current as a function of forward voltage; typical values



- (1) $T_{amb} = 125\text{ °C}$
- (2) $T_{amb} = 85\text{ °C}$
- (3) $T_{amb} = 25\text{ °C}$
- (4) $T_{amb} = -40\text{ °C}$

Fig 2. Reverse current as a function of reverse voltage; typical values



$T_{amb} = 25\text{ °C}; f = 1\text{ MHz}$

Fig 3. Diode capacitance as a function of reverse voltage; typical values

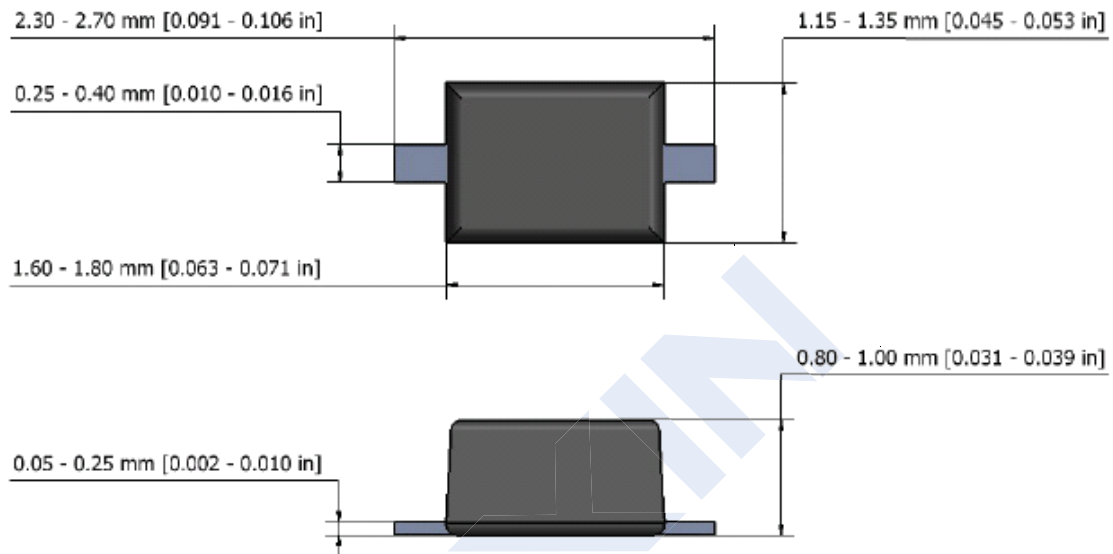
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■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

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**Note:**

- 1.The above package outline is similar to JEITA SC-90.
- 2.Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.