

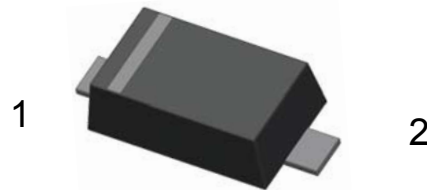
## Schottky Diodes

### PMEG3015EH

#### ■ Features

- Forward current:  $\leq 1.5$  A
- Reverse voltage:  $\leq 30$  V
- Ultra low forward voltage
- Small and flat lead SMD plastic packages

SOD-123F



Top View



PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Reverse Voltage	$V_{RM}$	30	V
Forward Current @ $T_{sp} \leq 55^\circ\text{C}$	$I_F$	1.5	A
Repetitive Peak Forward Current @ $t_p \leq 1\text{ms}; \delta \leq 0.25$	$I_{FRM}$	4.5	
Non-Repetitive Peak Forward Current @ $t_p \leq 8\text{ms}$	$I_{FSM}$	9	
Power Dissipation (Note.1)	$P_d$	375	mW
(Note.2)		830	
Thermal Resistance Junction to Ambient (Note.1)	$R_{\theta JA}$	330	$^\circ\text{C}/\text{W}$
(Note.2)		150	
Thermal Resistance Junction to Solder Point	$R_{\theta JSP}$	60	
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature range	$T_{stg}$	-65 to 150	

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

Note.2: Device mounted on an FR4 PCB, single-sided copper, tin-plated, mounting pad for cathode  $1\text{ cm}^2$

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## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V <sub>R</sub>	I <sub>R</sub> = 100 uA	30			V
Forward voltage	V <sub>F</sub>	I <sub>F</sub> = 1 mA			160	mV
		I <sub>F</sub> = 10 mA			220	
		I <sub>F</sub> = 100 mA			290	
		I <sub>F</sub> = 500 mA			380	
		I <sub>F</sub> = 1 A			480	
		I <sub>F</sub> = 1.5 A			550	
Reverse voltage leakage current	I <sub>R</sub>	V <sub>R</sub> = 10 V			150	uA
		V <sub>R</sub> = 30 V			1000	
Junction capacitance	C <sub>j</sub>	V <sub>R</sub> = 1V, f= 1MHz			72	pF

Note.Pulse test: t<sub>p</sub> ≤ 300 us; δ ≤ 0.02.

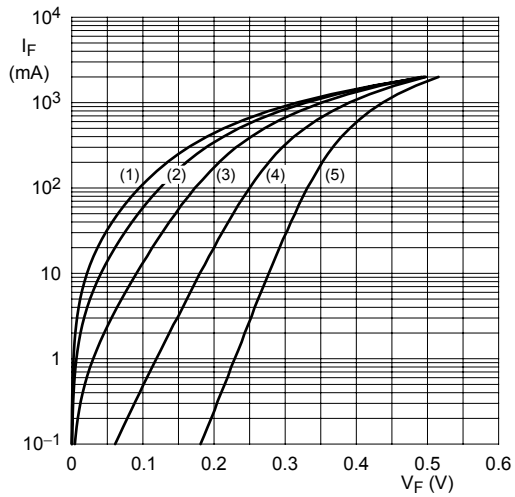
## ■ Marking

Marking	AE
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## Schottky Diodes

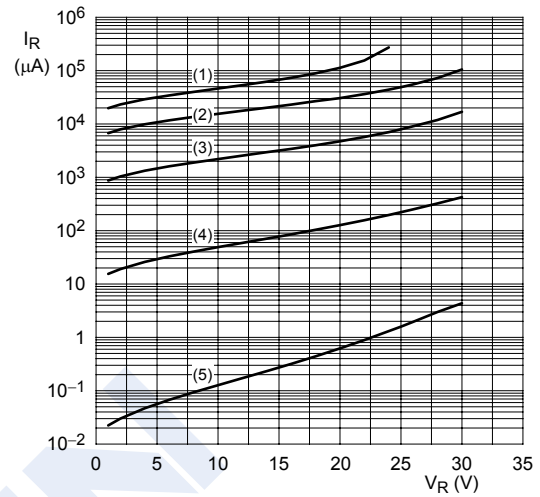
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#### ■ Typical Characteristics



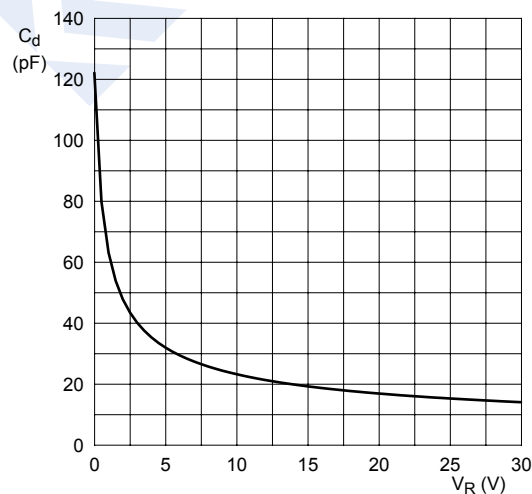
- (1)  $T_{amb} = 150\text{ }^{\circ}\text{C}$
- (2)  $T_{amb} = 125\text{ }^{\circ}\text{C}$
- (3)  $T_{amb} = 85\text{ }^{\circ}\text{C}$
- (4)  $T_{amb} = 25\text{ }^{\circ}\text{C}$
- (5)  $T_{amb} = -40\text{ }^{\circ}\text{C}$

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



- (1)  $T_{amb} = 150\text{ }^{\circ}\text{C}$
- (2)  $T_{amb} = 125\text{ }^{\circ}\text{C}$
- (3)  $T_{amb} = 85\text{ }^{\circ}\text{C}$
- (4)  $T_{amb} = 25\text{ }^{\circ}\text{C}$
- (5)  $T_{amb} = -40\text{ }^{\circ}\text{C}$

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



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

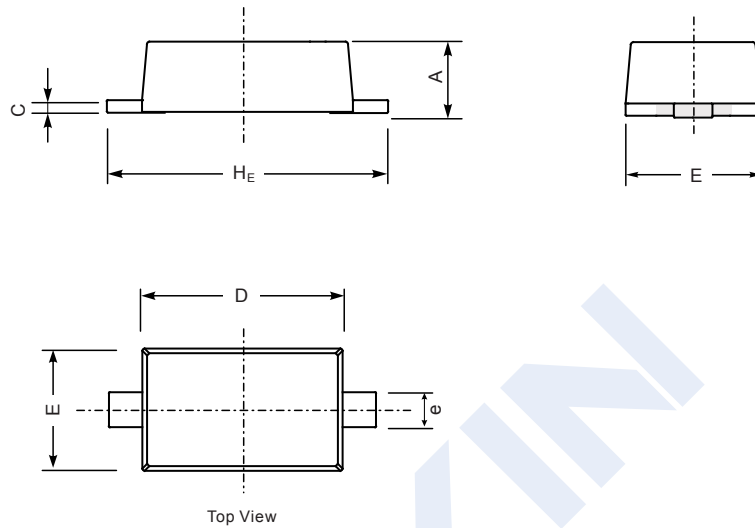
Fig 3. Diode capacitance as a function of reverse voltage; typical values

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Plastic surface mounted package; 2 leads

SOD-123F



UNIT		A	C	D	E	e	H <sub>E</sub>
mm	max	1.0	0.20	2.7	1.7	0.7	3.7
	min	0.8	0.05	2.5	1.5	0.5	3.3
mil	max	39	8	106	67	28	146
	min	31	2	98	59	20	130