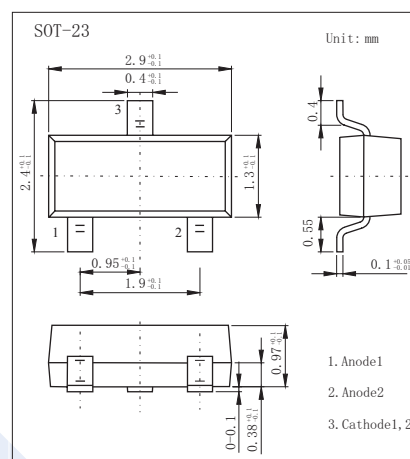
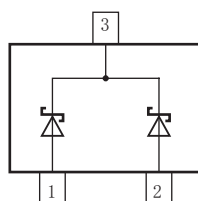


Schottky Diode

PMEG2005CT

■ Features

- Average forward current: $I_{F(AV)} \leq 0.5A$
- Reverse voltage: $V_R \leq 20V$
- Low forward voltage

■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter		Symbol	Rating	Unit
DC Blocking Voltage		V_R	20	V
Average Rectified Output Current		$I_{F(AV)}$	0.5	A
Repetitive peak forward current		I_{FRM}	3.9	
Non-repetitive peak forward current		I_{FSM}	10	
Power Dissipation	Note1	P_D	330	mW
	Note2		400	
	Note3		460	
Thermal Resistance Junction to Ambient	Note1	$R_{th(j-a)}$	375	$^\circ C/W$
	Note2		310	
	Note3		270	
Thermal Resistance Junction to Solder point	Note4	$R_{th(j-sp)}$	60	$^\circ C$
Junction Temperature		T_J	150	
Storage Temperature range		T_{stg}	-55 to 150	

Notes: 1. Device mounted on an FR4 PCB, single-sided copper, tin-plated, mounting pad for cathode 1cm².

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

3. Device mounted on a ceramic PCB, Al₂O₃, standard footprint.

4. Soldering point of cathode tab.

Schottky Diode

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■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V _R	I _R = 100 μA	20			V
Forward voltage	V _{F1}	I _F = 0.1 mA			130	mV
	V _{F2}	I _F = 1 mA			190	
	V _{F3}	I _F = 10mA			240	
	V _{F4}	I _F = 100 mA			330	
	V _{F5}	I _F = 500 mA			390	
Reverse voltage leakage current	I _{R1}	V _R =10 V			40	μA
	I _{R2}	V _R =20 V			200	
Diode capacitance	C _d	V _R = 1 V, f= 1 MHz			80	pF
Reverse recovery time	t _{rr}	Note 1		22		ns

Note1:When switched from I_F=10mA to I_R=10mA; R_L=100Ω; measured at I_R=1mA.

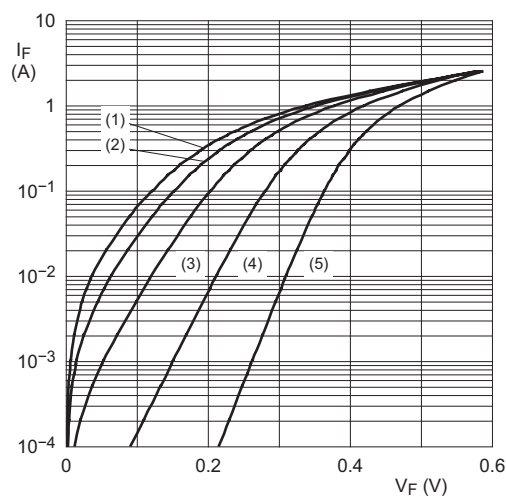
■ Marking

Marking	P8W
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Schottky Diode

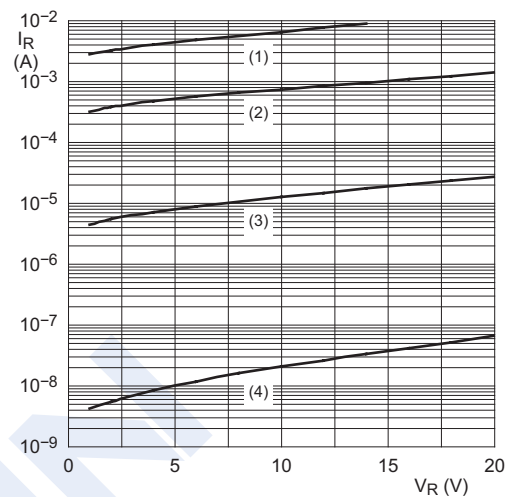
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■ Typical Characteristics



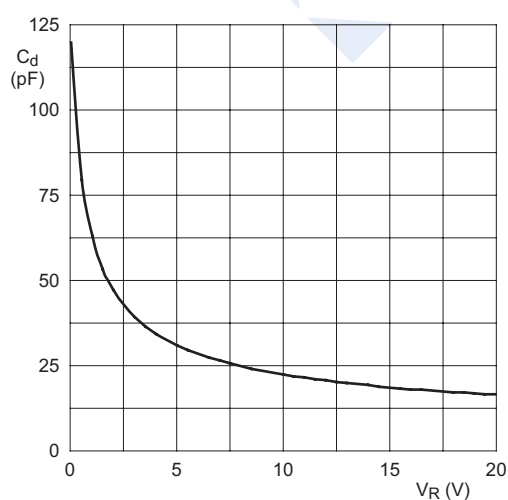
- (1) $T_j = 150\text{ }^{\circ}\text{C}$
- (2) $T_j = 125\text{ }^{\circ}\text{C}$
- (3) $T_j = 85\text{ }^{\circ}\text{C}$
- (4) $T_j = 25\text{ }^{\circ}\text{C}$
- (5) $T_j = -40\text{ }^{\circ}\text{C}$

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



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

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



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

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