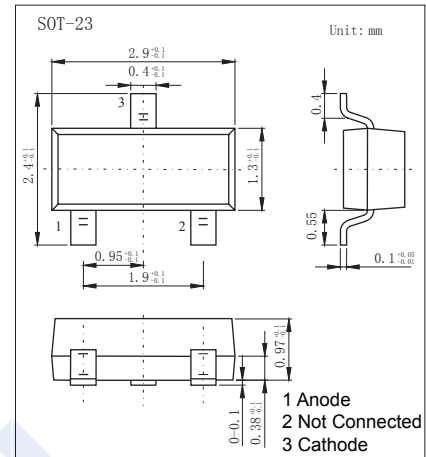
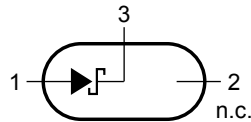


Schottky Diodes

1PS59SB21

■ Features

- Low forward voltage
- Guard ring protected
- Small SMD package.
- Ultra fast switching speed

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

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_{RM}	40	V
Forward Current	I_F	0.2	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	1	
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-65 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	$I_R = 100 \mu\text{A}$	40			V
Forward voltage	V_F	$I_F = 10 \text{ mA}$			0.3	
		$I_F = 100 \text{ mA}$			0.42	
		$I_F = 200 \text{ mA}$			0.55	
Reverse voltage leakage current	I_R	$V_R = 30 \text{ V}$			15	μA
		$V_R = 30 \text{ V}, T_J = 100^\circ\text{C}$			3	mA
Junction capacitance	C_j	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	40		50	pF

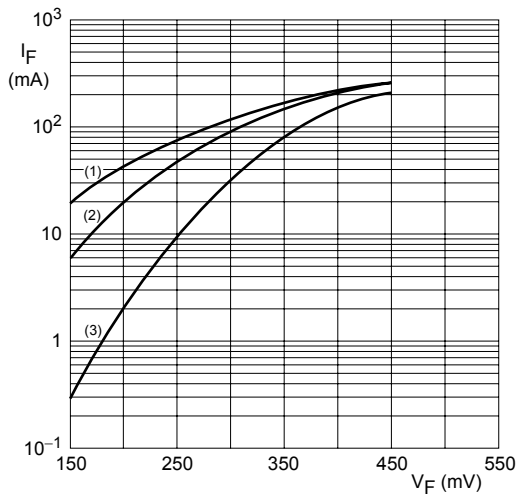
■ Marking

Marking	21
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Schottky Diodes

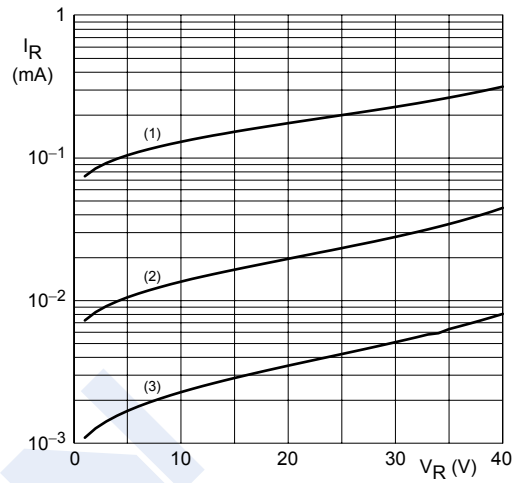
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■ Typical Characteristics



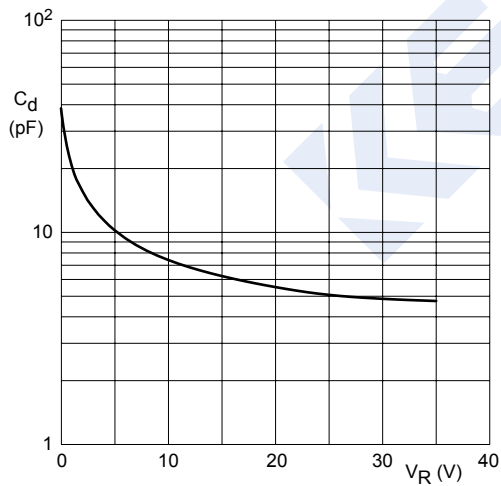
- (1) $T_{amb} = 125\text{ }^{\circ}\text{C}$.
 (2) $T_{amb} = 85\text{ }^{\circ}\text{C}$.
 (3) $T_{amb} = 25\text{ }^{\circ}\text{C}$.

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



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

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



$f = 1\text{ MHz}$; $T_j = 25\text{ }^{\circ}\text{C}$.

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