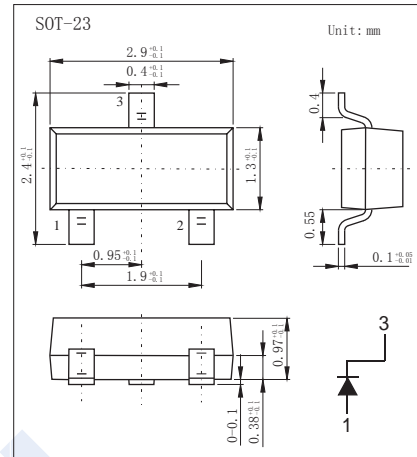


Switching Diodes

1KS3001

■ Features

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance

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

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	75	
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	V_{RMS}	53	mA
Average Rectified Output Current	I_o	150	
Peak Forward Surge Current	I_{FM}	300	
Peak Forward Surge Current @ $t=1\mu\text{s}$	I_{FSM}	2	A
@ $t=1\text{s}$		1	
Power Dissipation	P_d	350	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	$I_R = 100 \mu\text{A}$	75			V
Forward voltage	V_{F1}	$I_F = 1 \text{ mA}$			0.715	
	V_{F2}	$I_F = 10 \text{ mA}$			0.855	
	V_{F3}	$I_F = 50 \text{ mA}$			1	
	V_{F4}	$I_F = 150 \text{ mA}$			1.25	
Reverse voltage leakage current	I_{R1}	$V_R = 75 \text{ V}$			2.5	μA
	I_{R2}	$V_R = 20 \text{ V}$			25	nA
Capacitance between terminals	C_T	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$			2	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 10 \text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$			4	ns

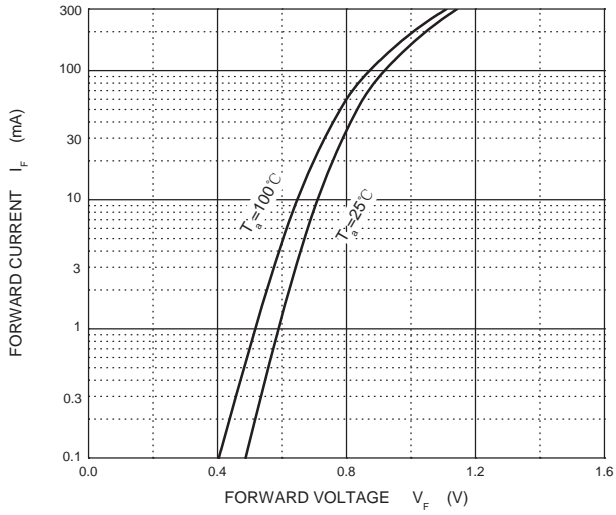
■ Marking

Marking	SS1
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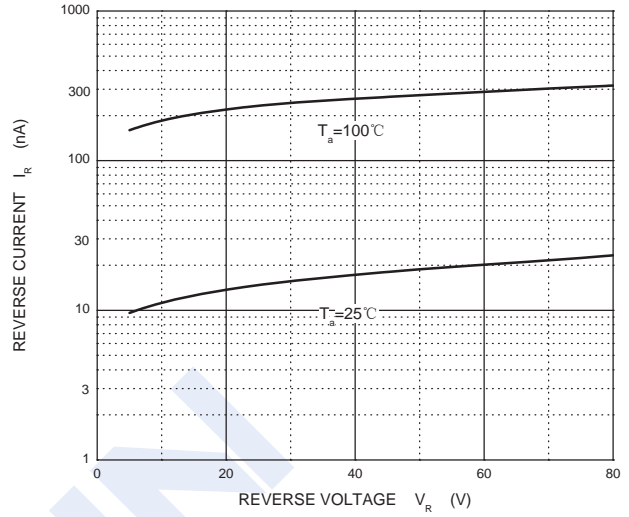
Switching Diodes

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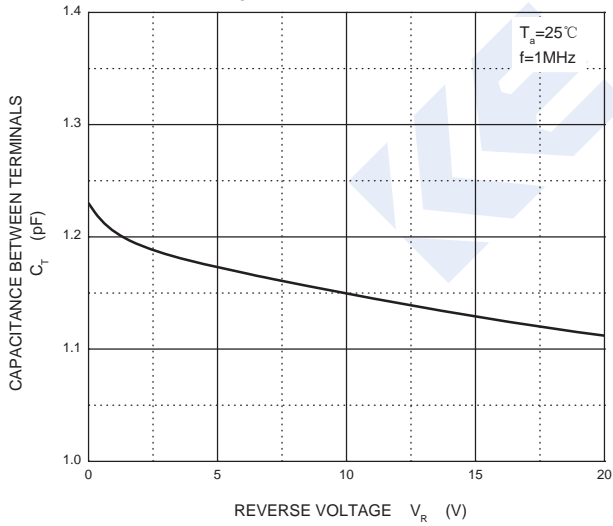
Typical Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve

