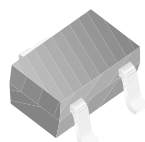
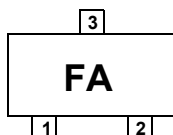


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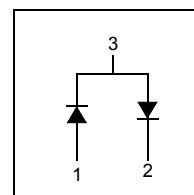
Small Signal Diode



SOT-323



Connection Diagram



Absolute Maximum Ratings * $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	70	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	1.0	A
		2.0	A
T_{STG}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	150	$^\circ\text{C}$

Thermal Characteristics

Symbol	Parameter	Value	Unit
P_D	Power Dissipation	270	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	460	$^\circ\text{C/W}$

FR-4 board (3.0 × 4.5 × 0.062" by 1.0 × 0.5" land pads)

Electrical Characteristics $T_C = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Conditions	Min.	Max	Units
V_R	Breakdown Voltage	$I_R = 100\mu\text{A}$	70		V
V_F	Forward Voltage	$I_F = 1.0\text{mA}$		715	mV
		$I_F = 10\text{mA}$		855	mV
		$I_F = 50\text{mA}$		1.0	V
		$I_F = 150\text{mA}$		1.25	V
I_R	Reverse Leakage	$V_R = 70\text{V}$		2.5	μA
		$V_R = 25\text{V}, T_A = 150^\circ\text{C}$		50	μA
		$V_R = 70\text{V}, T_A = 150^\circ\text{C}$		70	μA
C_T	Total Capacitance	$V_R = 0\text{V}, f = 1.0\text{MHz}$		2.0	pF
t_{rr}	Reverse Recovery Time	$I_F = I_R = 10\text{mA}, I_{RR} = 1.0\text{mA}, R_L = 100\Omega$		6.0	ns

Typical Performance Characteristics

Figure 1. Power Voltage Characteristics

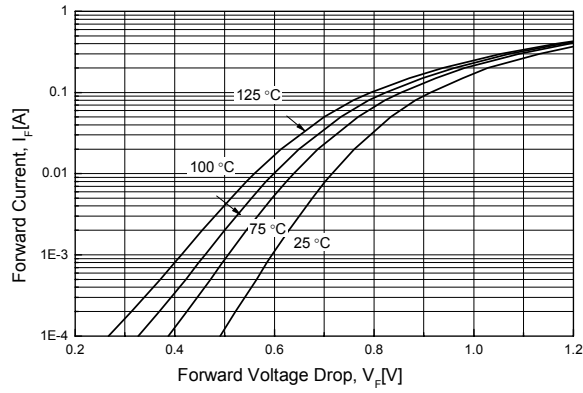


Figure 2. Reverse Current vs Reverse Voltage

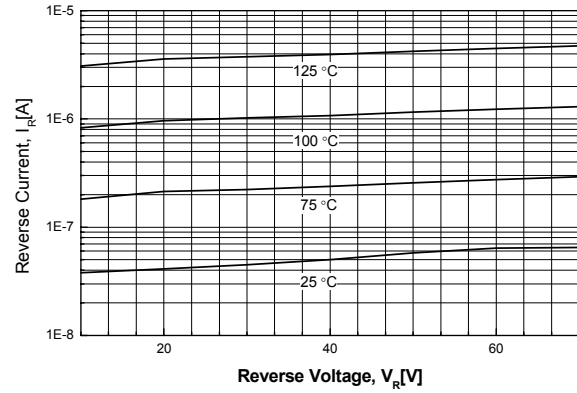


Figure 3. Total Capacitance

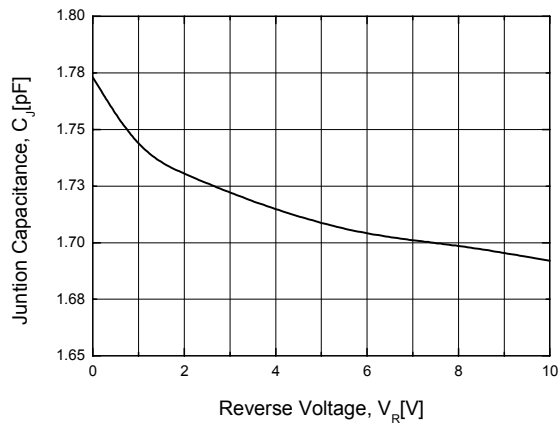
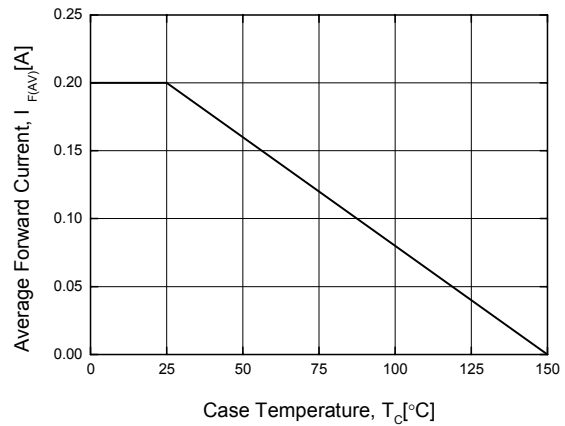


Figure 4. Power Derating Curve



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Rev. I15

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