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Thermal Characteristics

Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 5)	P_D	250	mW
Thermal Resistance, Junction to Ambient (Note 5)	$R_{\theta JA}$	500	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	°C

Electrical Characteristics (@T_A = +25°C unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Working Voltage	V_{RWM}	—	—	5.5	V	—
Reverse Current (Note 6)	I_R	—	—	100	nA	V_R = 5.0V
Reverse Breakdown Voltage	V_{BR}	6.0	—	—	V	I_R = 1mA
Reverse Clamping Voltage, Positive Transients (Note 7)	V_{CL}	—	10	12	V	I_{PP} = 1A, t_p = 8/20μs
Dynamic Resistance	R_{DYN}	—	0.9	—	Ω	I_R = 1A, t_p = 8/20μs
Capacitance	C_T	—	0.4	0.65	pF	V_R = 2.5V, f = 1MHz
		—	0.5	—	pF	V_R = 0V, f = 1MHz

Notes:
5. Device mounted on FR-4 PCB pad layout (2oz copper) as shown on Diodes, Inc. suggested pad layout AP02001, which can be found on our website at http://www.diodes.com.
6. Short duration pulse test used to minimize self-heating effect.
7. Clamping voltage value is based on an 8x20μs peak pulse current (I_{pp}) waveform.
8. Measured from any I/O to GND.
9. For information on the impact of Diodes' USB 2.0 compatible ESD protectors on signal integrity including eye diagram plots, please refer to AN77 at the following URL: http://www.diodes.com/destools/appnote_dnote.html.

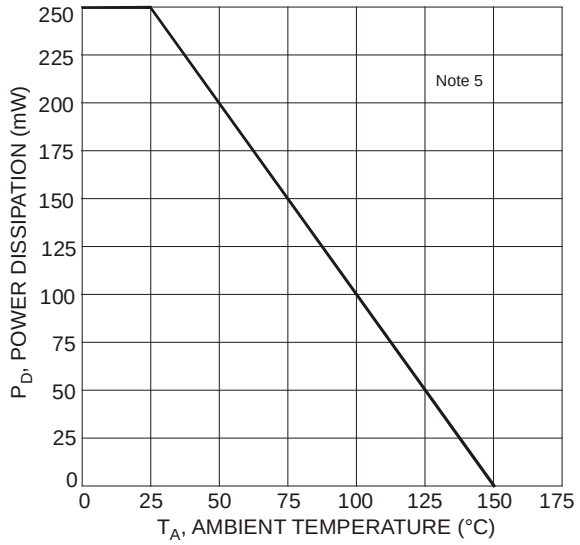

Figure 1 Power Derating Curve

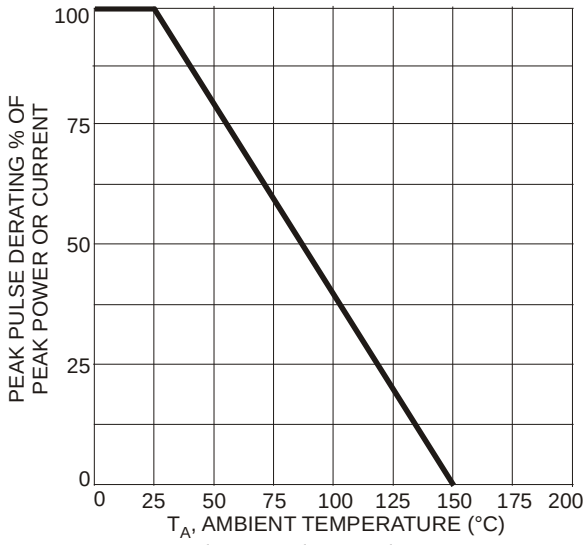

Figure 2 Pulse Derating Curve

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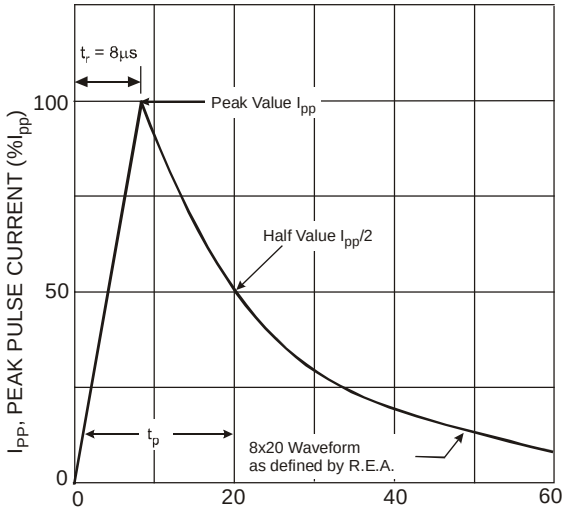


Figure 3 Pulse Waveform

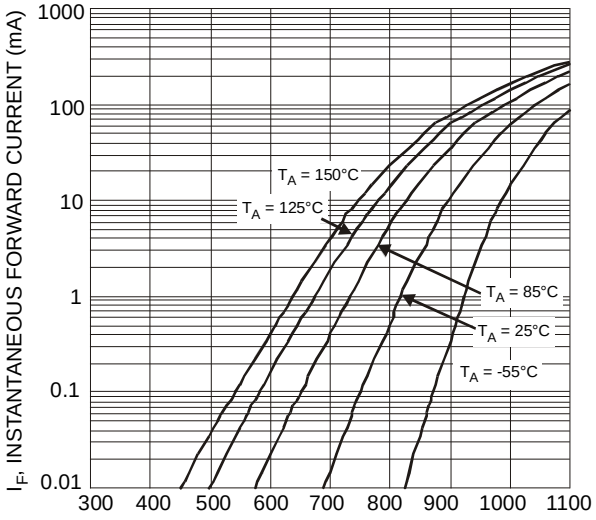


Figure 4 Typical Forward Characteristics

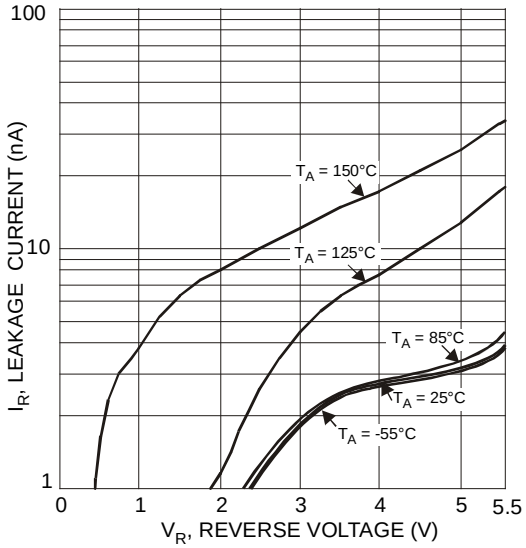


Figure 5 Typical Reverse Characteristics

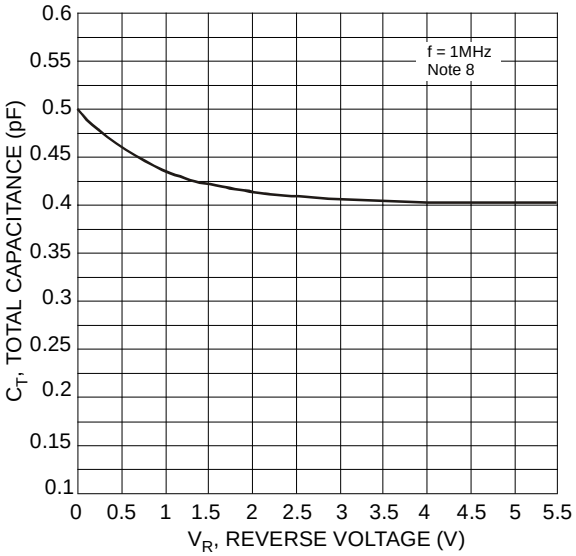
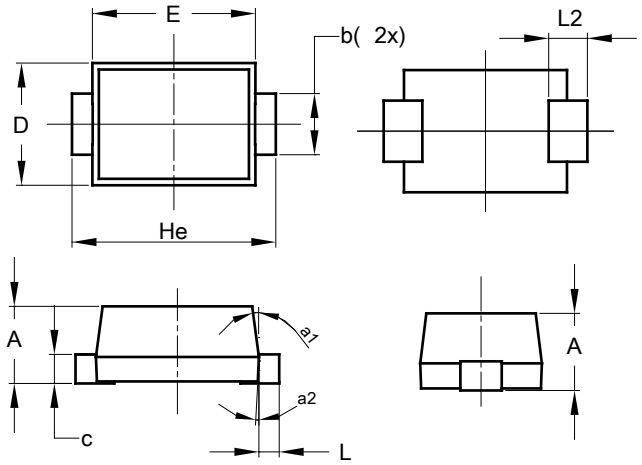


Figure 6 Total Capacitance vs. Reverse Voltage

Package Outline Dimensions

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for latest version.



SOD923 (0.3mm Lead Width)			
Dim	**Min**	**Max**	**Typ**
A	0.34	0.40	0.37
b	0.25	0.35	0.30
c	0.05	0.15	0.10
D	0.55	0.65	0.60
E	0.75	0.85	0.80
He	0.95	1.05	1.00
L	0.05	0.15	0.10
L2	0.190 REF		
a1	0°	8°	7°
a2	2°	4°	3°
All Dimensions in mm			

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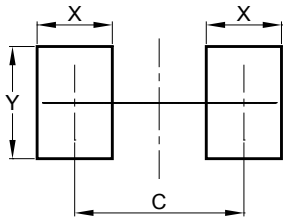
Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for latest version.



Dimensions	Value (in mm)
C	0.900
X	0.400
Y	0.600

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