Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	80	V
Forward Continuous Current (Note 6)	I_{FM}	500	mA
Repetitive Peak Forward Current @ T_p = 5µs, f = 50kHz (Note 6)	I_{FRM}	1000	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0µs @ t = 1.0s	I_{FSM}	20 1.0	A
Clamping Voltage @ I_{pp} = 20A (Note 7) 8x20µs Waveform	V_C	16	V

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 6)	P_D	200	mW
Thermal Resistance, Junction to Ambient Air (Note 6)	$R_{\theta JA}$	625	°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 Condition
Reverse Breakdown Voltage (Note 8)	$V_{(BR)R}$	80	—	—	V	I_R = 100µA
Forward Voltage	V_F	0.62 — — —	—	0.72 0.93 1.0 1.25	V	I_F = 5.0mA I_F = 20mA I_F = 100mA I_F = 150mA
Reverse Current (Note 8)	I_R	—	—	100 50 30 25	nA µA µA nA	V_R = 70V V_R = 75V, T_J = 150°C V_R = 25V, T_J = 150°C V_R = 20V
Capacitance, Between I/O Lines (I/O1 & I/O2)	C_{LL}	—	2.5	4.0	pF	V_R = 0V, f = 1.0MHz
Capacitance Between I/O Line and Ground	C_{LG}	—	3.3	5.3	pF	V_R = 0V, f = 1.0MHz
Reverse Recovery Time	t_{rr}	—	—	4.0	ns	V_R = 6V, I_F = 5mA

Notes:
6. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch; pad layout as shown on Diodes Inc. suggested pad layout document AP02001, which can be found on our website at http://www.diodes.com.
7. Referenced to V_P or V_N.
8. Short duration pulse test used to minimize self-heating effect.

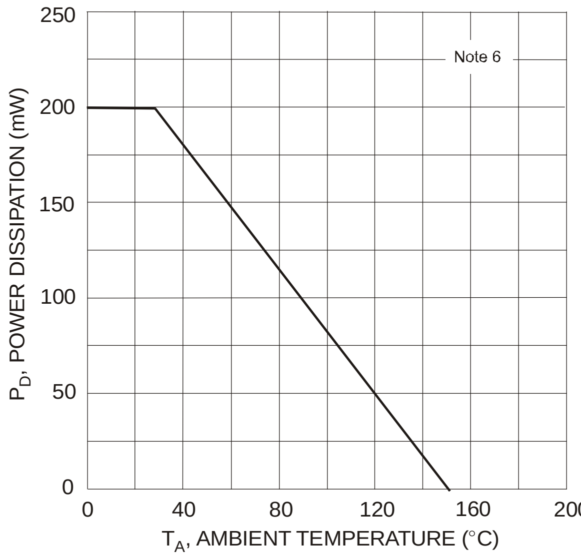


Fig. 1 Power Derating Curve, Total Package

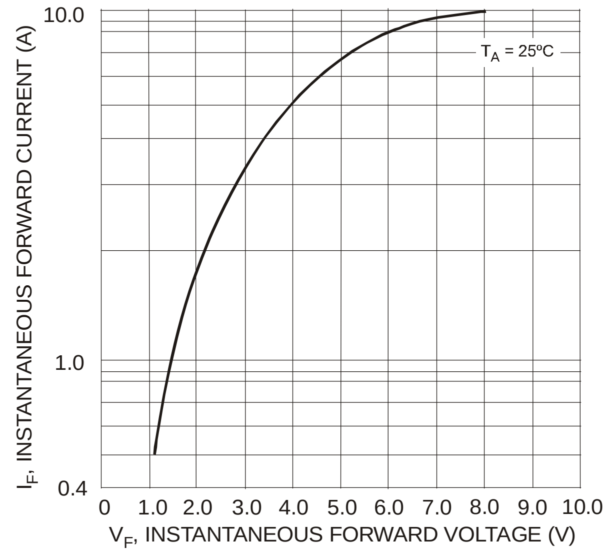


Fig. 2 Typical Forward Characteristics, High Current, Per Element

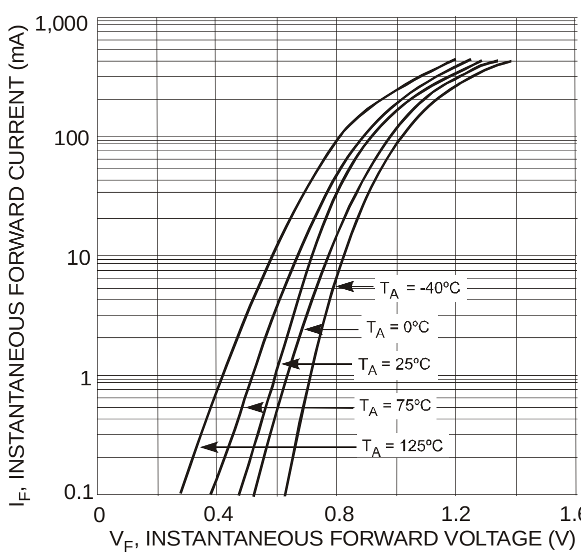


Fig. 3 Typical Forward Characteristics, Low Current, Per Element

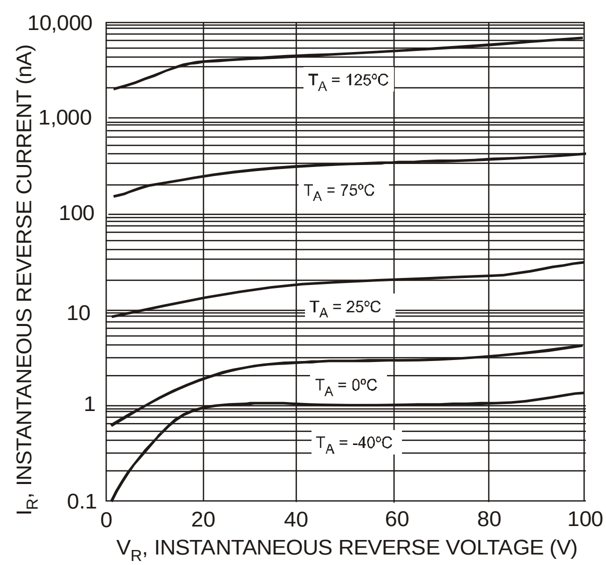


Fig. 4 Typical Reverse Characteristics, Per Element

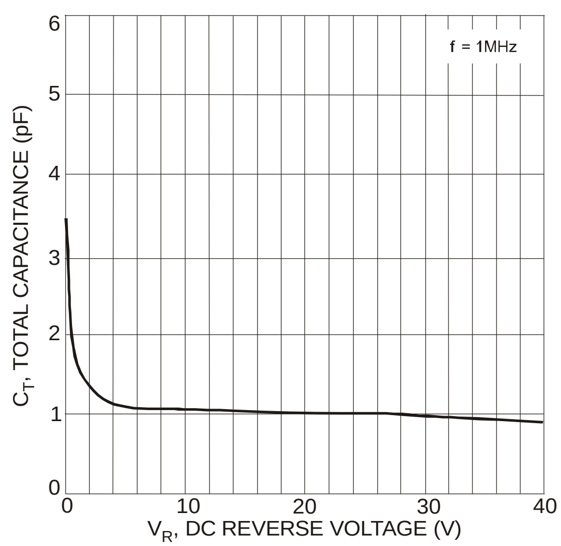


Fig. 5 Total Capacitance vs. Reverse Voltage Per Element

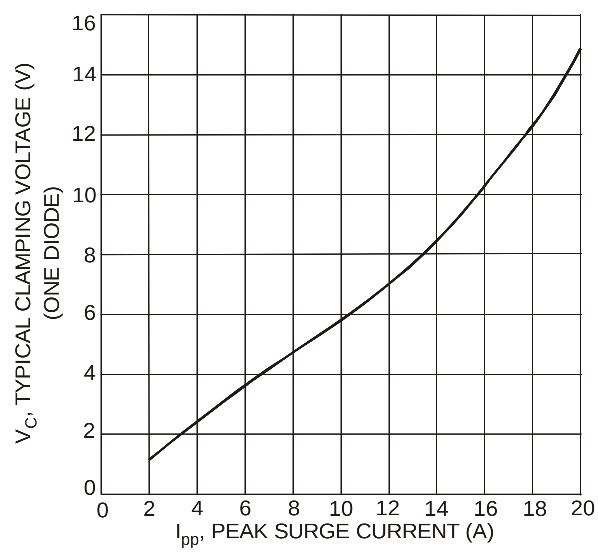
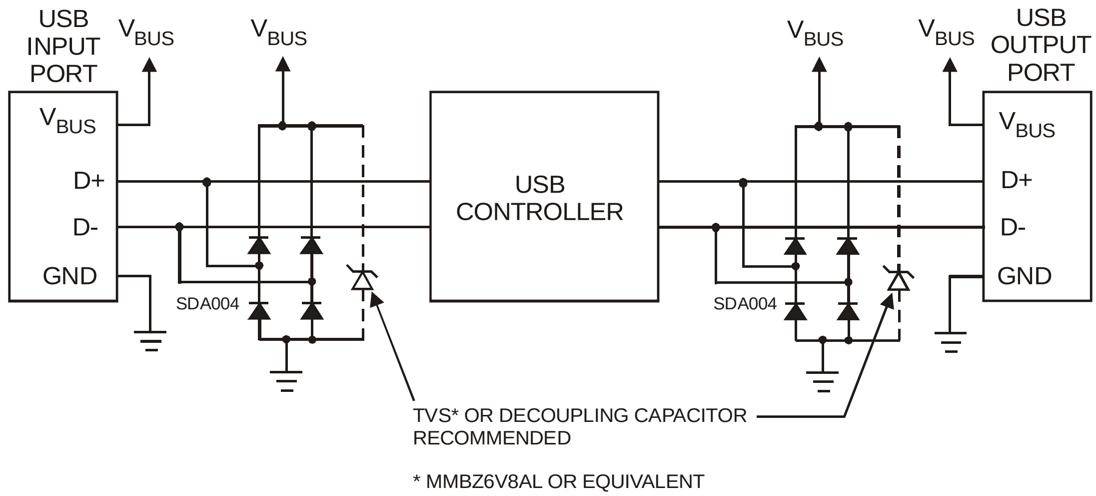
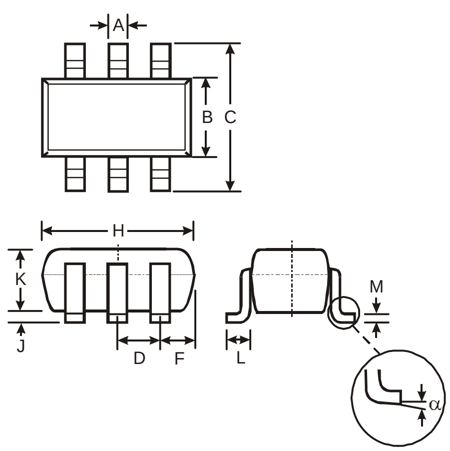


Fig. 6 6100-4-5 8x20µs Surge Response, Per Element



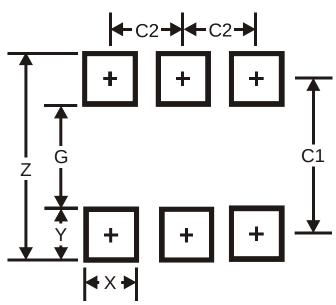
ESD PROTECTION - USB APPLICATION

Package Outline Dimensions



SOT-363		
Dim	**Min**	**Max**
A	0.10	0.30
B	1.15	1.35
C	2.00	2.20
D	0.65 Typ	
F	0.40	0.45
H	1.80	2.20
J	0	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.22
α	0°	8°
All Dimensions in mm		

Suggested Pad Layout



Dimensions	Value (in mm)
Z	2.5
G	1.3
X	0.42
Y	0.6
C1	1.9
C2	0.65

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