Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Power Dissipation	P_{PP}	84	W	8/20µs, Per Fig. 2
Peak Pulse Current	I_{PP}	6	A	8/20µs, Per Fig. 2
ESD Protection – Contact Discharge	$V_{ESD\_Contact}$	±30	kV	Standard IEC 61000-4-2
ESD Protection – Air Discharge	V_{ESD_Air}	±30	kV	Standard IEC 61000-4-2

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 5)	P_D	200	mW
Thermal Resistance, Junction to Ambient (Note 5)	$R_{\theta JA}$	625	°C/W
Operating Junction Temperature Range	T_J	-65 to +150	°C
Storage Temperature Range	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}	-	-	5.0	V	-
Breakdown Voltage	V_{BR}	6	7	8	V	I_R = 1.0mA
Reverse Leakage Current (Note 6)	I_R	-	10	100	nA	V_{RWM} = 5V
Clamping Voltage (Note 4)	V_{CL}	-	7.0	9.0	V	I_{PP} = 1A, t_p = 8/20µS
		-	8.7	10.7	V	I_{PP} = 3A, t_p = 8/20µS
		-	10.5	12.0	V	I_{PP} = 5A, t_p = 8/20µS
		-	11.5	14.0	V	I_{PP} = 6A, t_p = 8/20µS
Differential Resistance	R_{DIF}	-	0.2	-	Ω	I_R = 1.0A, t_p = 8/20µS
Channel Input Capacitance	C_T	-	15	20	pF	V_{IN} = 0 V, f = 1MHz (Channel to Pin 2)

Notes:
4. Measured from channel to pin 2; Non-repetitive current pulse per Fig. 2.
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.

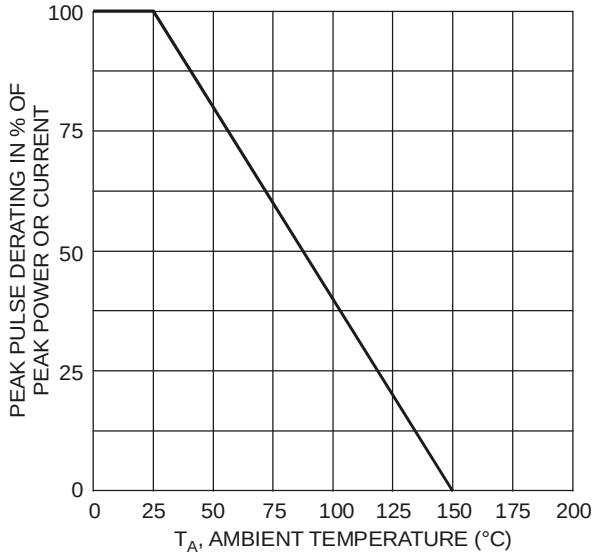


Fig. 1 Pulse Derating Curve

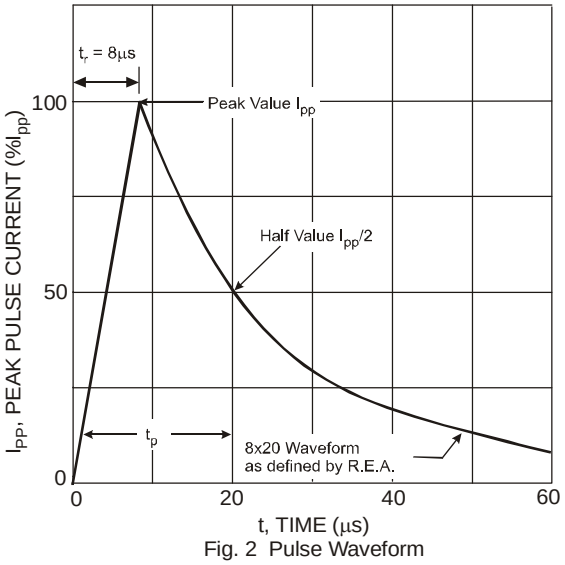


Fig. 2 Pulse Waveform

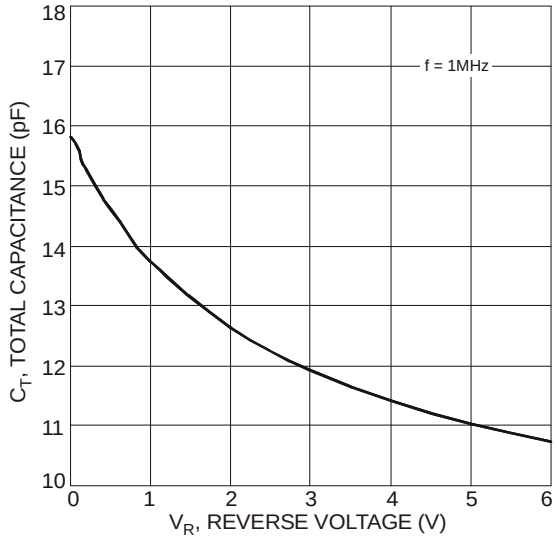


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

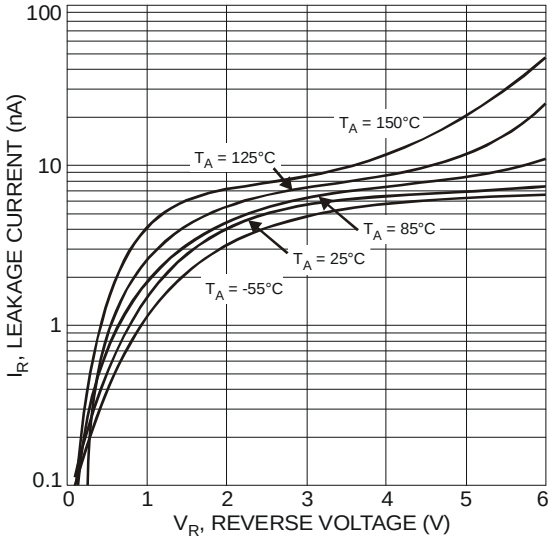
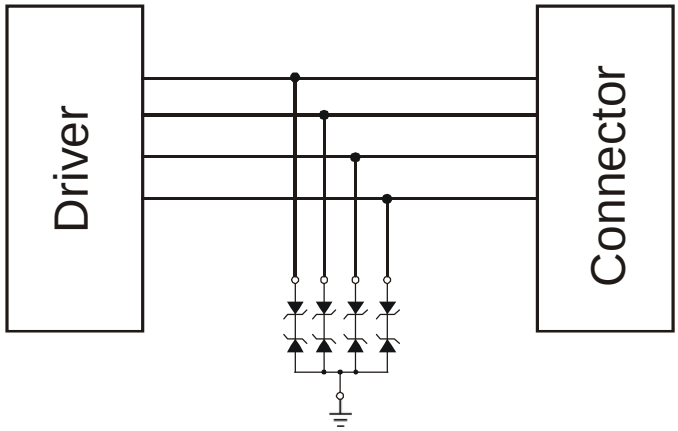


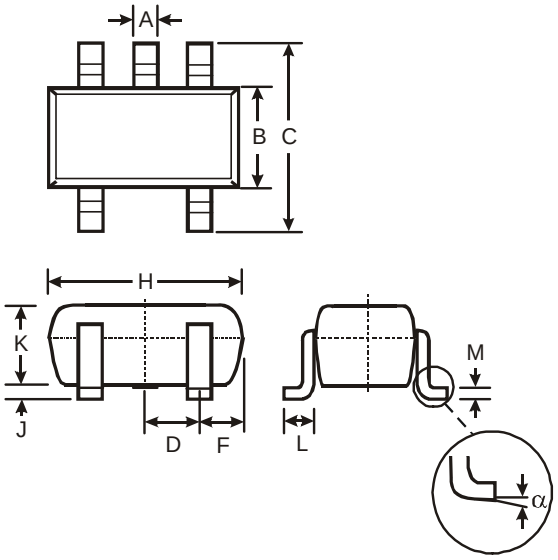
Fig. 4 Typical Reverse Characteristics

Typical Applications



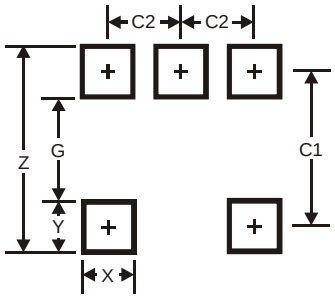
D5V0L4B5S

Package Outline Dimensions



SOT353		
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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