

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Forward Voltage @ I _F = 10mA	V _F	0.9	V

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Notes 5)	P _D	300	mW
Peak Power Dissipation, 8x20μS Waveform (Note 6)	P _{pk}	20	W
Thermal Resistance, Junction-to-Ambient (Note 5)	R _{θJA}	417	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

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

Type Number	Marking Code	Breakdown Voltage (Note 7)			Leakage Current (Note 7)		Max. Clamping Voltage (Note 6)		Capacitance @0V Bias(pF) (Note 8)		Capacitance @3V Bias(pF) (Note 8)	
		V _{BR} @ I _T = 1mA			I _{RM} @ V _{RM}		V _C @ I _{PP}		C _T		C _T	
		Min (V)	Nom (V)	Max (V)	Max(μA)	(V)	V _C (V)	I _{PP} (A)	Typ	Max	Typ	Max
DUP45V6P5	V2	5.3	5.6	5.9	1.0	3.0	10.5	1.0	13	17	7.0	11.5

- Notes:
- 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>.
 - Non-repetitive current pulse per Figure 3 and derate above T_A = +25°C per Figure 3.
 - Short duration pulse test used to minimize self-heating effect.
 - Per element, f = 1MHz, T_A = +25°C

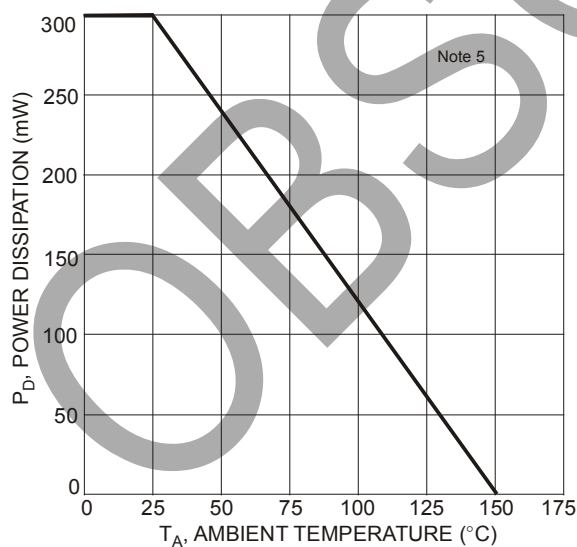


Figure 1 Power Derating Curve

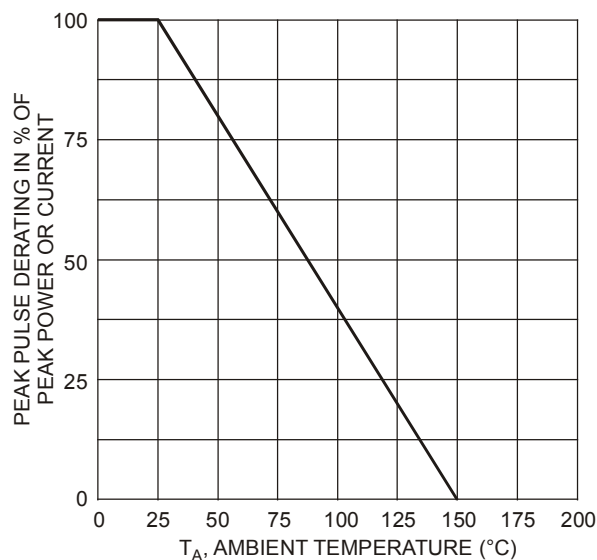
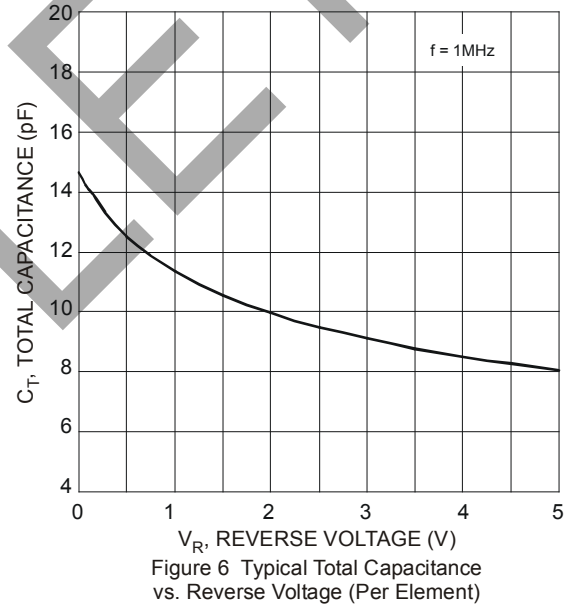
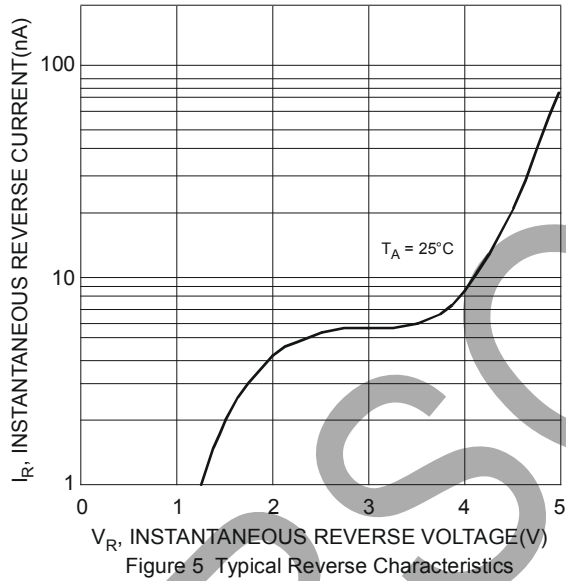
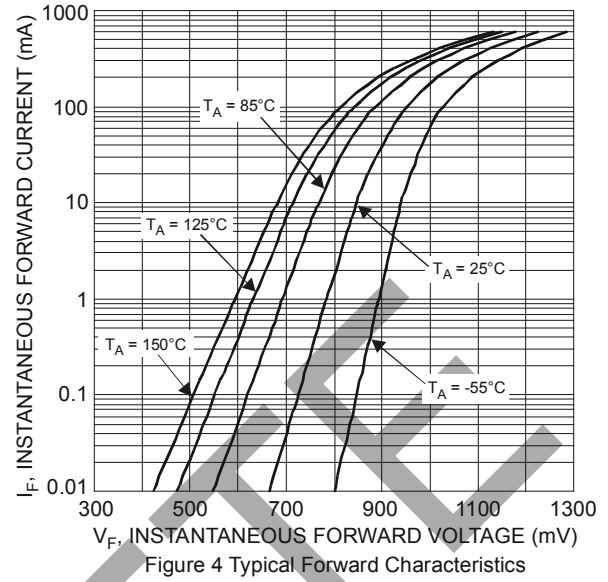
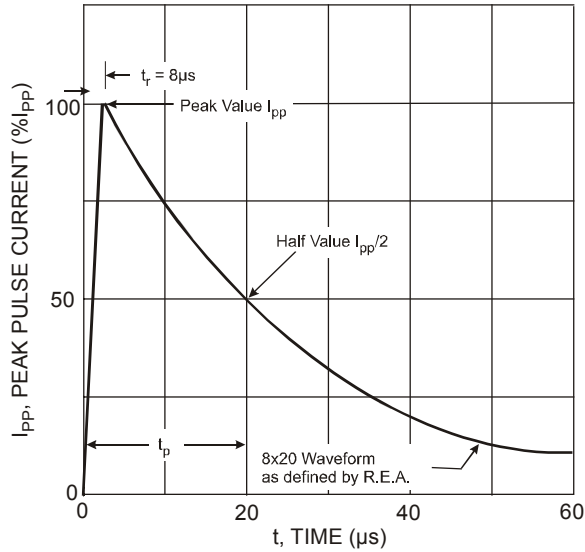
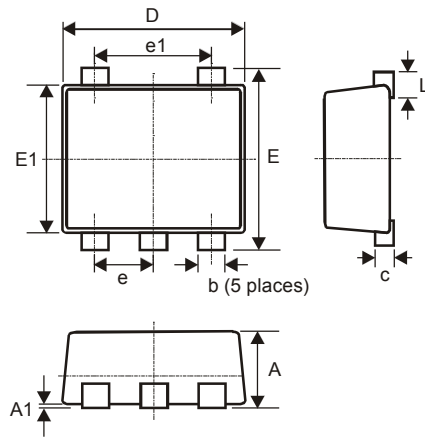


Figure 2 Pulse Derating Curve



Package Outline Dimensions

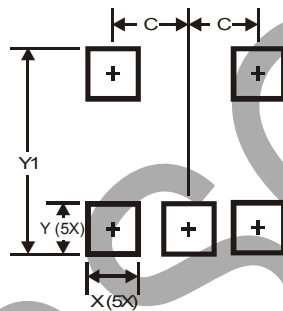
Please see AP02002 at <http://www.diodes.com/datasheets/ap02002.pdf> for latest version.



SOT953			
Dim	Min	Max	Typ
A	0.40	0.50	0.45
A1	0	0.05	—
b	0.10	0.20	0.15
c	0.12	0.18	0.15
D	0.95	1.05	1.00
E	0.95	1.05	1.00
E1	0.75	0.85	0.80
e	—	—	0.35
e1	—	—	0.70
L	0.05	0.15	0.10
All Dimensions in mm			

Suggested Pad Layout

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



Dimensions	Value (in mm)
C	0.350
X	0.200
Y	0.200
Y1	1.100

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