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

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Power Dissipation	P_{PP}	300	W	10/1000µs, Per Figure 1
Peak Pulse Current	I_{PP}	9.5	A	10/1000µs, Per Figure 1
ESD Protection – Contact Discharge	$V_{ESD\_Contact}$	±30	kV	IEC 61000-4-2 Standard
ESD Protection – Air Discharge	V_{ESD_Air}	±30	kV	IEC 61000-4-2 Standard

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Package Power Dissipation (Note 5)	P_D	500	mW
Thermal Resistance, Junction to Ambient (Note 5)	$R_{\theta JA}$	250	°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 Standoff Voltage	V_{RWM}	—	—	26	V	—
Channel Leakage Current (Note 6)	I_{RM}	—	—	100	nA	V_{RWM} = 26V
Forward Voltage	V_F	0.6	0.8	1.2	V	I_R = 10mA
Clamping Voltage	V_{CL}	—	—	40	V	I_{PP} = 9.5A, t_p = 10/1000µS
Breakdown Voltage	V_{BR}	28	—	31.9	V	I_R = 1mA
Channel Input Capacitance	C_T	—	630	—	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.

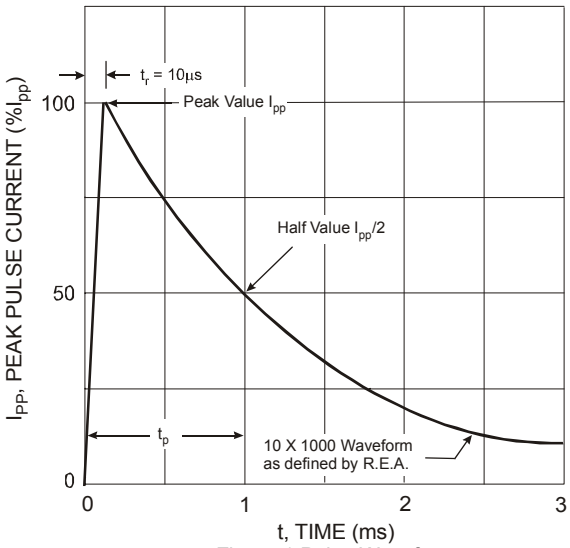

Figure 1 Pulse Waveform

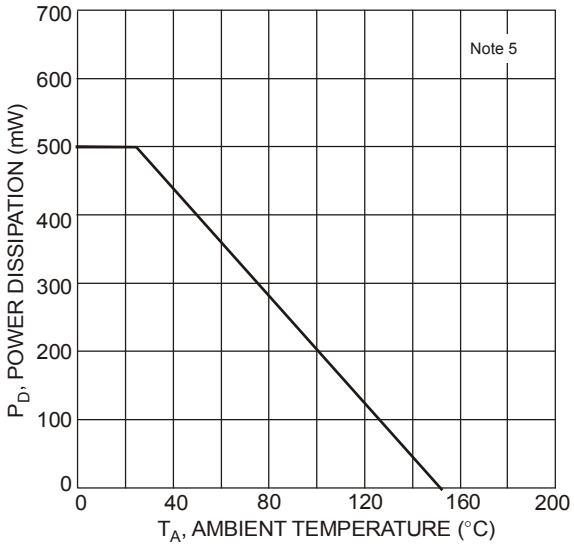

Figure 2 Power Derating Curve

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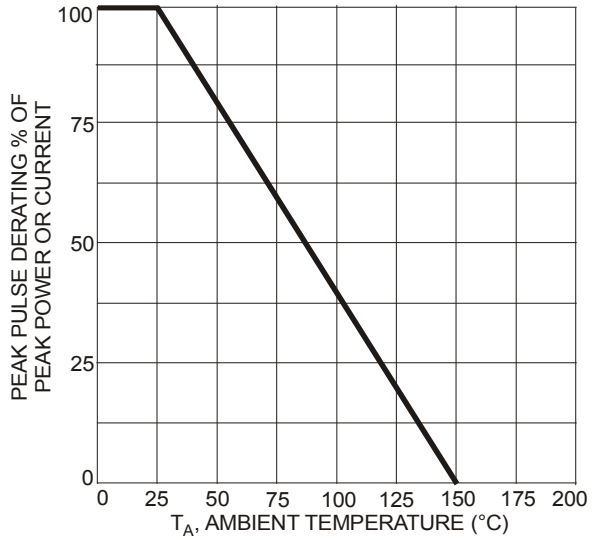


Figure 3 Power Dissipation vs. Ambient Temperature

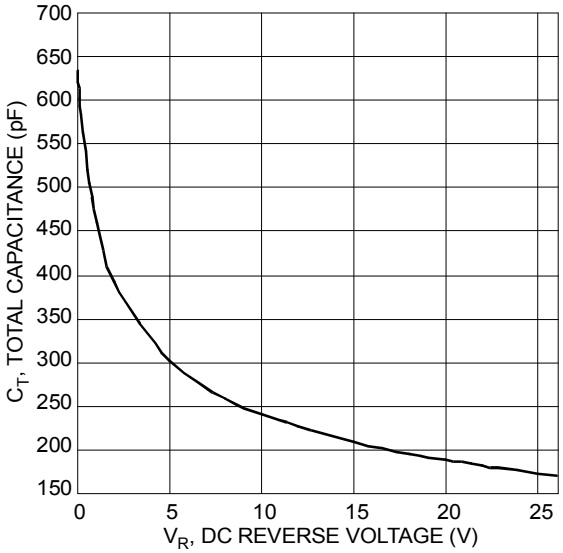


Figure 4 Typical Total Capacitance

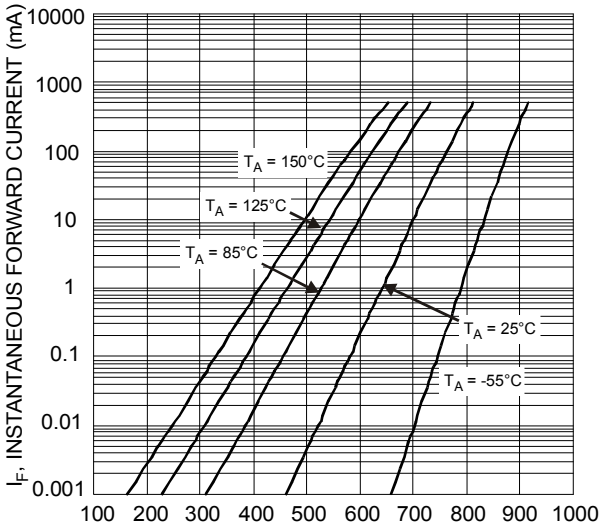


Figure 5 Typical Forward Characteristics

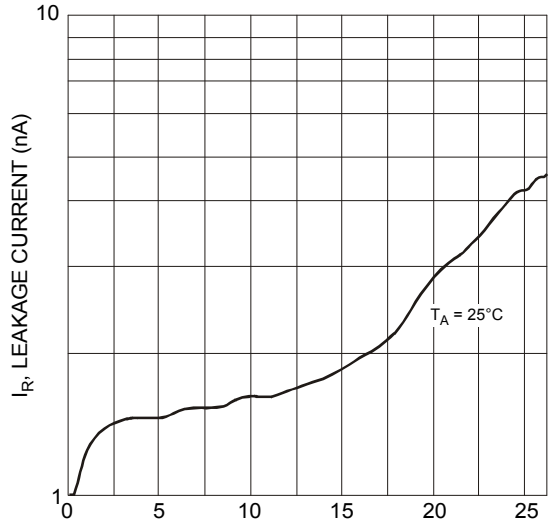
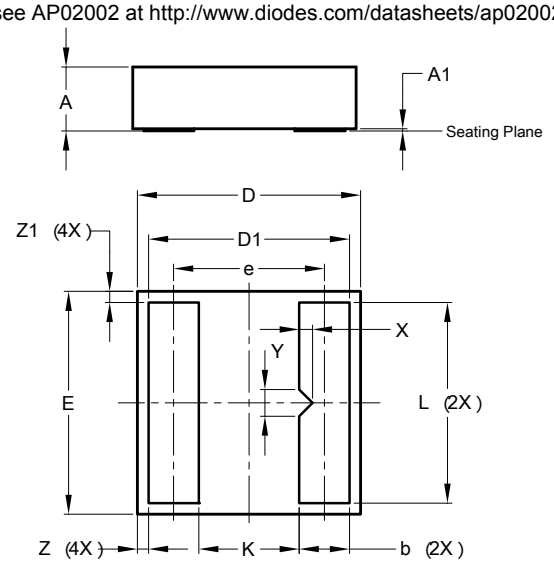


Figure 6 Typical Reverse Characteristics

Package Outline Dimensions

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



U-DFN2020-2			
Dim	**Min**	**Max**	**Typ**
A	0.545	0.605	0.575
A1	0	0.05	0.02
b	0.35	0.55	0.45
D	1.90	2.10	2.00
D1	1.70	1.90	1.80
E	1.90	2.10	2.00
e	1.35 BSC		
K	0.80	1.00	0.90
L	1.70	1.90	1.80
X	-	-	0.120
Y	-	-	0.240
Z	0.10 BSC		
Z1	0.10 BSC		
All Dimensions in mm			

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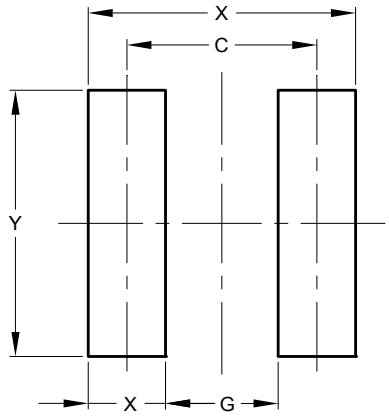
Suggested Pad Layout

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



Dimensions	Value (in mm)
C	1.350
G	0.800
X	0.550
X1	1.900
Y	1.900

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