

## Maximum Ratings @T<sub>A</sub> = 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 <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	75	V
RMS Reverse Voltage		$V_{R(RMS)}$	53	V
Forward Continuous Current (Note 6)		I <sub>FM</sub>	215	mA
Non-Repetitive Peak Forward Surge Current	@ t = 1.0μs @ t = 1.0ms @ t = 1.0s	I <sub>FSM</sub>	2.0 1.0 0.5	А

### **Thermal Characteristics**

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 6)	P <sub>D</sub>	200	mW
Power Dissipation (Note 7)	$P_{D}$	300	mW
Thermal Resistance Junction to Ambient Air (Note 6)	$R_{ hetaJA}$	625	°C/W
Thermal Resistance Junction to Ambient Air (Note 7)	$R_{ heta JA}$	417	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

# Electrical Characteristics @TA = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 8)	V <sub>(BR)R</sub>	75	1	>	$I_R = 2.5 \mu A$
Forward Voltage	V <sub>F</sub>	_	0.715	V	$I_F = 1.0 \text{mA}$
		_	0.855		I <sub>F</sub> = 10mA
		_	1.0		$I_F = 50 \text{mA}$
		_	1.25		I <sub>F</sub> = 150mA
	I <sub>R</sub>	_	2.5		$V_R = 75V$
Reverse Current (Note 8)		_	50		$V_R = 75V, T_J = +150^{\circ}C$
		_	30		$V_R = 25V, T_J = +150^{\circ}C$
		_	25	nA	$V_R = 20V$
Total Capacitance	CT	_	2.0	рF	$V_R = 0, f = 1.0MHz$
Reverse Recovery Time	t <sub>rr</sub>	_	4.0	ns	$I_F = I_R = 10 \text{mA},$ $I_{rr} = 0.1 \text{ x } I_R, R_L = 100 \Omega$

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. Device mounted on Alumina PCB, 0.4 inch x 0.3 inch x 0.024 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.

  8. Short duration pulse test used to minimize self-heating effect.



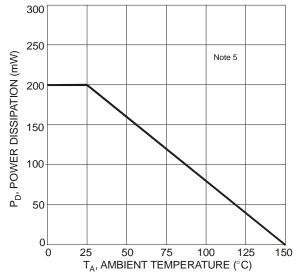
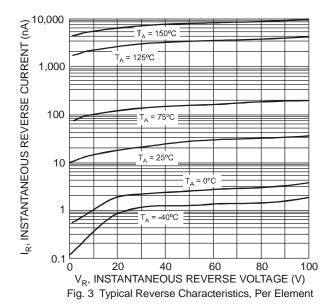


Fig. 1 Power Derating Curve, Total Package



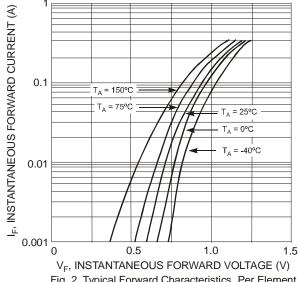


Fig. 2 Typical Forward Characteristics, Per Element

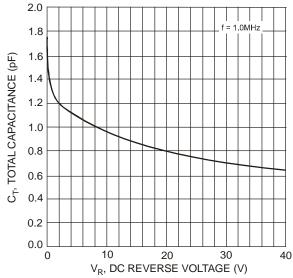
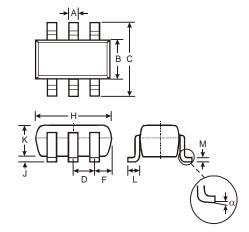


Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element

# **Package Outline Dimensions**

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

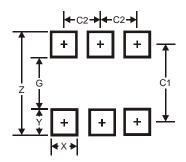


SOT363			
Dim	Min	Max	
Α	0.10	0.30	
В	1.15	1.35	
С	2.00	2.20	
D	0.65 Typ		
F	0.40	0.45	
Η	1.80	2.20	
J	0	0.10	
K	0.90	1.00	
L	0.25	0.40	
M	0.10	0.22	
α	0°	8°	
All Dimensions in mm			



### Suggested Pad Layout

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



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

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