

# **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>	80	V
RMS Reverse Voltage		V <sub>R(RMS)</sub>	57	V
Forward Continuous Current (Note 5)		I <sub>FM</sub>	300	mA
Average Rectified Output Current (Note 5)		lo	150	mA
Repetitive Peak Forward Current		I <sub>FRM</sub>	450	mA
, , , , , , , , , , , , , , , , , , ,	@ t = 1.0µs @ t = 1.0ms @ t = 1.0s	I <sub>FSM</sub>	4 1 0.5	А

## **Thermal Characteristics**

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	$P_{D}$	200	mW
Thermal Resistance, Junction to Ambient Air (Note 5)	$R_{ hetaJA}$	625	°C/W
Thermal Resistance, Junction to Solder Point	$R_{ heta JSP}$	70	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

# Electrical Characteristics (@T<sub>A</sub> = +25°C unless otherwise specified.)

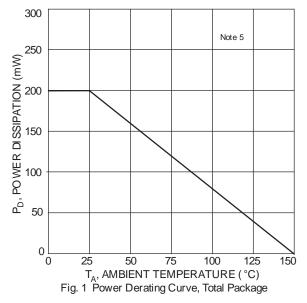
Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 6)	V <sub>(BR)R</sub>	75 80		٧	$I_F = 2.5\mu A$ $I_F = 20\mu A$
Forward Voltage	VF	_	0.715 0.855 1.0 1.25	V	I <sub>F</sub> = 1.0mA I <sub>F</sub> = 10mA I <sub>F</sub> = 50mA I <sub>F</sub> = 150mA
Reverse Current (Note 6)	I <sub>R</sub>	_	2.5 50 30 25	μΑ μΑ μΑ nA	V <sub>R</sub> = 75V V <sub>R</sub> = 75V, T <sub>J</sub> = +150°C V <sub>R</sub> = 25V, T <sub>J</sub> = +150°C V <sub>R</sub> = 20V
Total Capacitance	Ст	_	1.5	pF	$V_R = 0$ , $f = 1.0MHz$
Reverse Recovery Time	t <sub>rr</sub>	_	4.0	ns	$I_F = I_R = 10 \text{mA},$ $I_{rr} = 0.1 \text{ x } I_R, R_L = 100 \Omega$
Forward Recovery Voltage	$V_{FR}$	_	1.75	V	$I_F = 10 \text{mA}, t_r = 20 \text{ ns}$

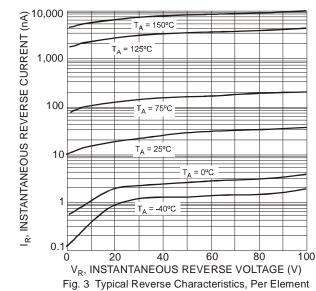
Notes:

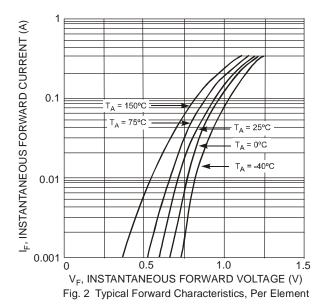
Device mounted on FR-4 PCB, 1in. x 0.85in. x 0.062in. Pad layout as shown on Diodes Inc. suggested pad layout document AP02001, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.

<sup>6.</sup> Short duration pulse test used to minimize self-heating effect.









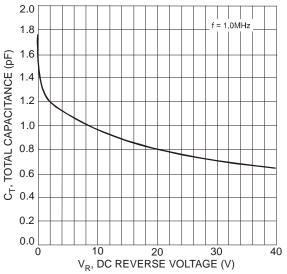
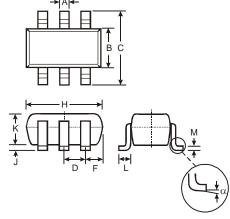


Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element

## **Package Outline Dimensions**

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

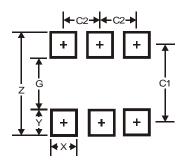


SOT363				
Dim	Min	Max	Тур	
Α	0.10	0.30	0.25	
В	1.15	1.35	1.30	
С	2.00	2.20	2.10	
D	0.65 Typ			
F	0.40	0.45	0.425	
Н	1.80	2.20	2.15	
J	0	0.10	0.05	
K	0.90	1.00	1.00	
L	0.25	0.40	0.30	
М	0.10	0.22	0.11	
α	0°	8°	-	
All	All Dimensions in mm			



## 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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