

## **Maximum Ratings** @ $T_A = 25$ °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 <sub>R(RMS)</sub>	53	V
Forward Continuous Current (Note 5)		I <sub>FM</sub>	500	mA
Average Rectified Output Current (Note 5)		lo	250	mA
Non-Repetitive Peak Forward Surge Current	@ t < 1μs @ t < 1s	I <sub>FSM</sub>	4 1	A

### **Thermal Characteristics**

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	P <sub>D</sub>	200	mW
Thermal Resistance Junction to Ambient Air (Note 5)	$R_{ hetaJA}$	625	°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 6)	V <sub>(BR)R</sub>	75	1	<b>V</b>	$I_R = 10\mu A$
	VF	0.62	0.720	V	$I_F = 5.0 \text{mA}$
Forward Voltage			0.855		$I_F = 10 \text{mA}$
I orward voltage	V F		1.0		$I_F = 50 \text{mA}$
			1.25		$I_F = 150 \text{mA}$
		I <sub>R</sub> —	2.5	μΑ	V <sub>R</sub> = 75V
Payoroa Current (Note 6)			50	μA	$V_R = 75V, T_J = 150$ °C
Reverse Current (Note 6)	IR		30	μΑ	$V_R = 25V, T_J = 150^{\circ}C$
			25	nA	$V_R = 20V$
Total Capacitance	C <sub>T</sub>		4.0	pF	V <sub>R</sub> = 0, f = 1.0MHz
Reverse Recovery Time			4.0	no	$I_F = I_R = 10 \text{mA},$
Reverse Recovery Time	t <sub>rr</sub>	_	4.0	ns	$I_{rr} = 0.1 \text{ x } I_{R}, R_{L} = 100\Omega$

Notes:

- 5. 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.
- 6. Short duration pulse test used to minimize self-heating.

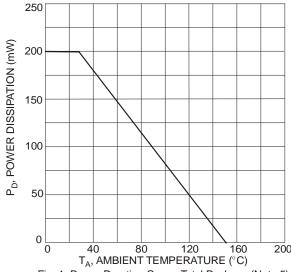


Fig. 1 Power Derating Curve, Total Package (Note 5)

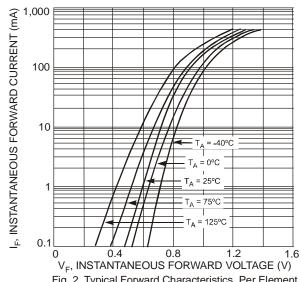
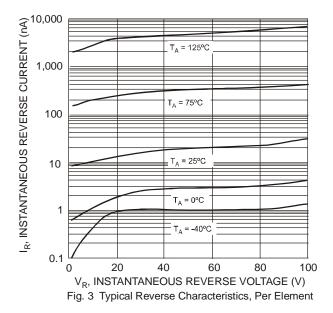


Fig. 2 Typical Forward Characteristics, Per Element





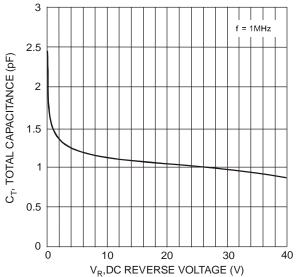
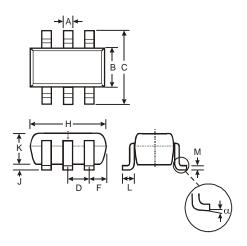


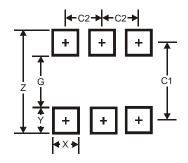
Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element

### **Package Outline Dimensions**



SOT-363			
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	
Н	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
Х	0.42
Υ	0.6
C1	1.9
C2	0.65



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