

### **Maximum Ratings** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic		Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V <sub>RRM</sub> V <sub>RWM</sub> VR	100	V
RMS Reverse Voltage		V <sub>R(RMS)</sub>	71	V
Forward Continuous Current (Note 5)		I <sub>FM</sub>	250	mA
Repetitive Peak Forward Current		I <sub>FRM</sub>	500	mA
Non-Repetitive Peak Forward Surge Current		I <sub>FSM</sub>	1.0 0.5	А

## **Thermal Characteristics**

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	$P_{D}$	350	mW
Thermal Resistance Junction to Ambient Air (Note 5)	$R_{\theta JA}$	357	°C/W
Thermal Resistance Junction to Solder Point	$R_{ heta JSP}$	255	°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>	100	_	V	I <sub>R</sub> = 2.5μA
		_	0.715	V	$I_F = 1.0 \text{mA}$
Forward Voltage	VF	_	0.855		$I_F = 10mA$
i orward voltage	٧F	_	1.0		$I_F = 50 \text{mA}$
		_	1.25		I <sub>F</sub> = 150mA
	I <sub>R</sub>	_	0.5	μΑ	$V_R = 80V$
Reverse Current (Note 6)		_	50	μΑ	$V_R = 80V, T_J = +150$ °C
Reverse Current (Note 6)		_	30	μA	V <sub>R</sub> = 25V, T <sub>J</sub> = +150°C
		_	30	nA	$V_R = 25V$
Total Capacitance	Ст	_	1.5	pF	$V_R = 0$ , $f = 1.0MHz$
Reverse Recovery Time	t <sub>RR</sub>	_	4.0	ns	$I_F = I_R = 10 \text{mA},$
Reverse Recovery Time					$I_{RR} = 0.1 \text{ x } I_{R}, R_{L} = 100\Omega$
Forward Recovery Voltage	$V_{FR}$	_	1.75	٧	$I_F = 10 \text{mA}, t_R = 20 \text{ns}$

Notes: 5. Part mounted on FR-4 PC board with recommended pad layout, please see http://www.diodes.com/package-outlines.html for the latest version.

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



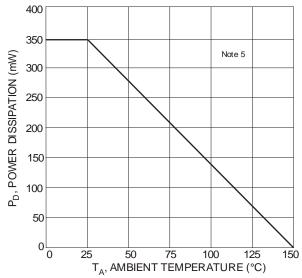
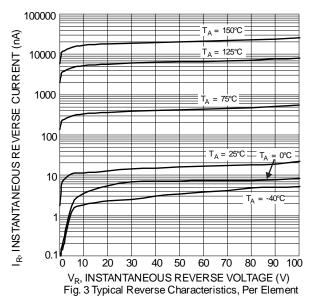
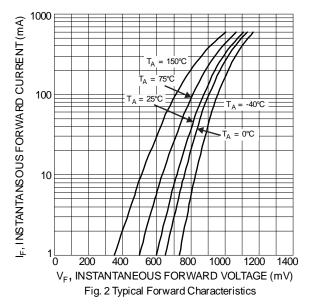


Fig. 1 Power Derating Curve, Total Package





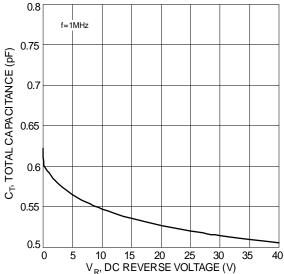


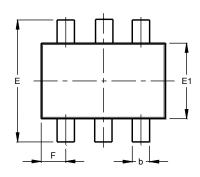
Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element

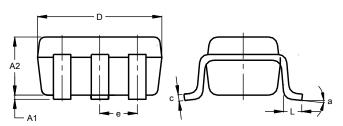


## **Package Outline Dimensions**

Please see http://www.diodes.com/package-outlines.html for the latest version.

### **SOT363**



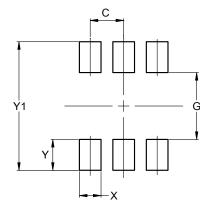


SOT363				
Dim	Min	Max	Тур	
A1	0.00	0.10	0.05	
A2	0.90	1.00	1.00	
b	0.10	0.30	0.25	
С	0.10	0.22	0.11	
D	1.80	2.20	2.15	
E	2.00	2.20	2.10	
E1	1.15	1.35	1.30	
е	0.650 BSC			
F	0.40	0.45	0.425	
L	0.25	0.40	0.30	
а	0°	8°	_	
All Dimensions in mm				

# **Suggested Pad Layout**

Please see http://www.diodes.com/package-outlines.html for the latest version.

### **SOT363**



Dimensions	Value (in mm)
C	0.650
G	1.300
Х	0.420
Y	0.600
Y1	2.500



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