

### **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> V <sub>R</sub>	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Forward Continuous Current (Note 6)	I <sub>FM</sub>	0.4	Α
Non-Repetitive Peak Forward Surge Current @ t = 8.3ms	I <sub>FSM</sub>	2	A
Repetitive peak Forward Current	I <sub>FRM</sub>	500	mA

### **Thermal Characteristics**

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 6)	$P_{D}$	400	mW
Typical Thermal Resistance Junction to Ambient Air (Note 6)	R <sub>0JA</sub>	180	°C/W
Typical Thermal Resistance Junction to Case (Note 6)	$R_{ heta JC}$	41	°C/W
Operating Temperature Range	T <sub>OP</sub>	-30 to +85	°C
Junction Temperature Range	$T_J$	-30 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-40 to +125	°C

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

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 5)	$V_{(BR)R}$	40			V	$I_R = 500 \mu A$
Forward Voltage	V <sub>F</sub>	_	_	300	mv	I <sub>F</sub> = 10mA
				500		$I_F = 200 \text{mA}$
Leakage Current (Note 5)	$I_R$	_		70	μΑ	$V_R = 25V$
Total Capacitance	Ст	_		100	pF	$V_R = 0V$ , $f = 1.0MHz$

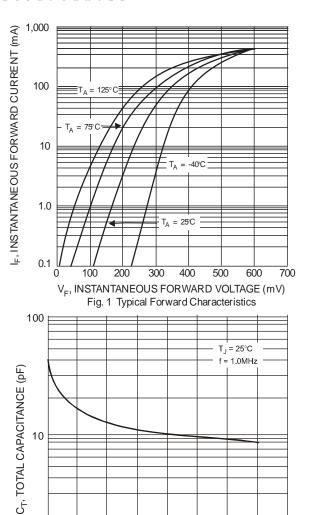
Notes:

<sup>5.</sup> Short duration pulse test used to minimize self-heating effect.6. Mounted on FR4 PC Board with minimum recommended pad layout which can be found on our website at http://www.diodes.com/package-outlines.html.

T<sub>A</sub> = 125°C

 $T_A = 75^{\circ}C$ 





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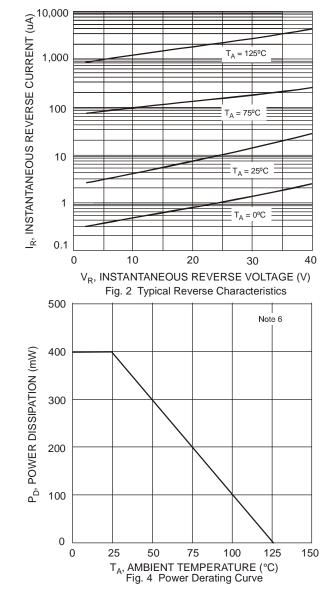
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V<sub>R</sub>, DC REVERSE VOLTAGE (V)

Fig. 3 Total Capacitance vs. Reverse Voltage

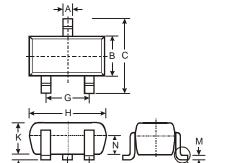
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# **Package Outline Dimensions**

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

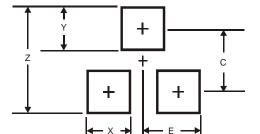


#### **SC59**

SC59				
Dim	Min	Max	Тур	
Α	0.35	0.50	0.38	
В	1.50	1.70	1.60	
С	2.70	3.00	2.80	
D	-	-	0.95	
G		_	1.90	
Н	2.90	3.10	3.00	
7	0.013	0.10	0.05	
K	1.00	1.30	1.10	
L	0.35	0.55	0.40	
M	0.10	0.20	0.15	
Ν	0.70	0.80	0.75	
α	0°	8°	-	
All Dimensions in mm				

## **Suggested Pad Layout**

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



#### **SC59**

Dimensions	Value (in mm)
Z	3.4
X	0.8
Υ	1.0
С	2.4
E	1.35



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