

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

Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

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>	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	700	V
Average Rectified Output Current (Note 5) @ T <sub>C</sub> = +100°C	I <sub>O</sub>	1.5	A
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	50	A
I <sup>2</sup> t Rating for Fusing (1ms < t < 8.3ms)	I <sup>2</sup> t	10.375	A <sup>2</sup> S
Maximum Forward Voltage (Per Element) @ I <sub>F</sub> = 1.5A	V <sub>FM</sub>	1.3	V
Maximum Reverse Recovery Time (Note 6)	t <sub>RR</sub>	160	ns
Peak Reverse Current @ T <sub>A</sub> = +25°C	I <sub>R</sub>	5.0	μA
At Rated DC Blocking Voltage (Note 7) @ T <sub>A</sub> = +125°C		200	
Typical Total Capacitance (Per Element) (Note 8)	C <sub>T</sub>	17	pF

## Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Ambient (Note 5) (Per Element)	R <sub>θJA</sub>	80	°C/W
Typical Thermal Resistance, Junction to Lead (Per Element)	R <sub>θJL</sub>	25	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

Notes: 5. Device mounted on aluminum substrate PC board with 1.3mm<sup>2</sup> solder pad.  
6. Reverse Recovery Test Conditions: I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A.  
7. Short duration pulse test used to minimize self-heating effect.  
8. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.

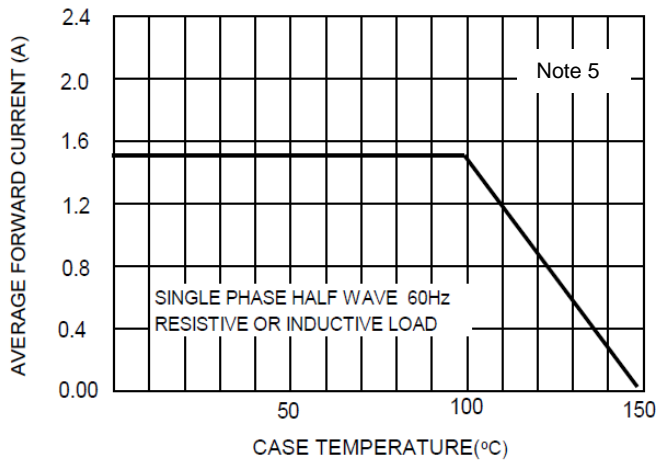


Figure 1. Forward Current Derating Curve

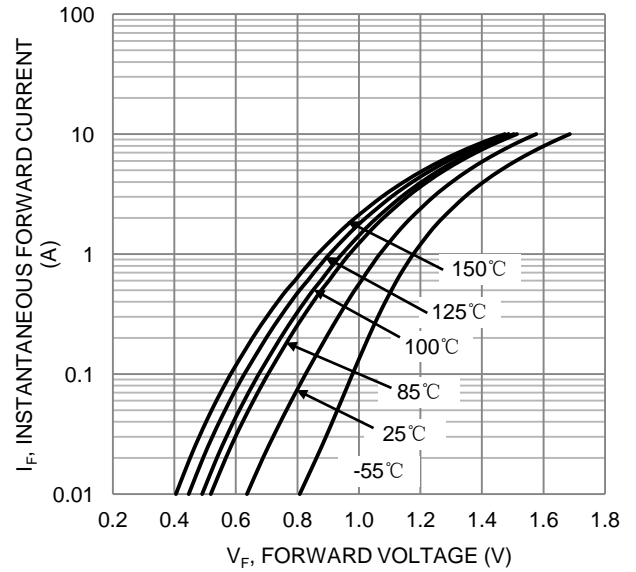


Figure 2. Typical Forward Characteristics

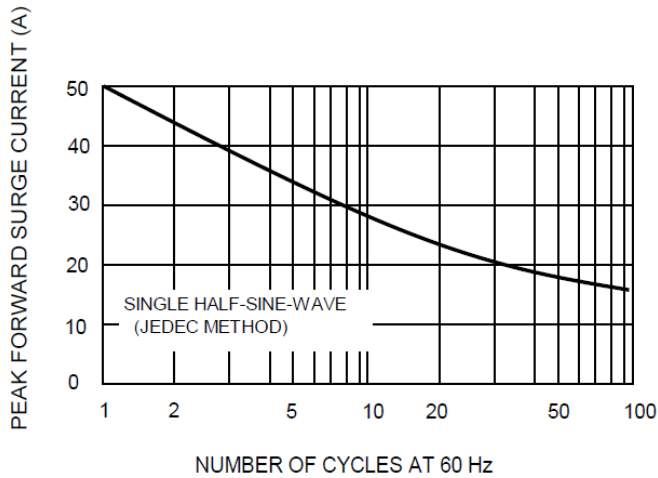


Figure 3. Maximum Non-Repetitive Surge Current

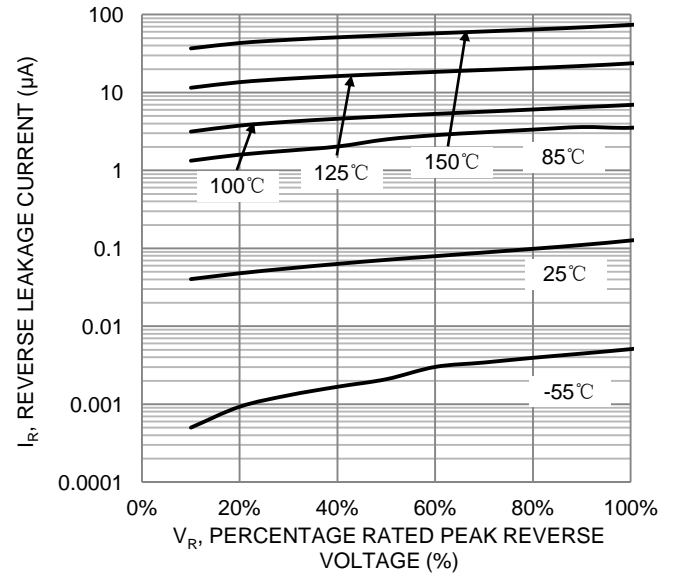


Figure 4. Typical Reverse Characteristics

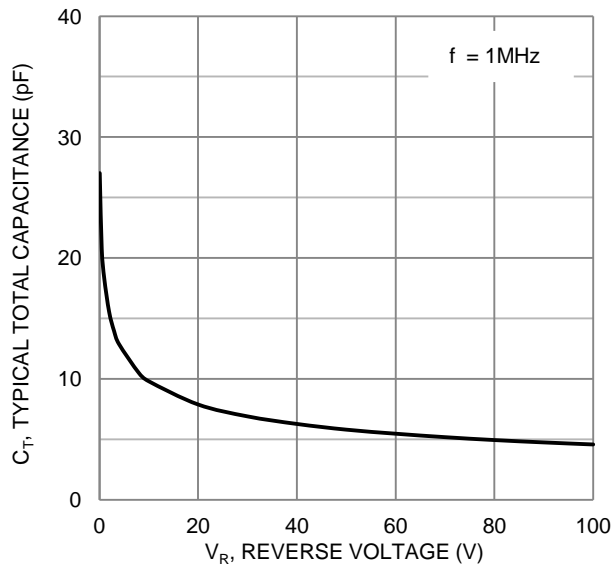
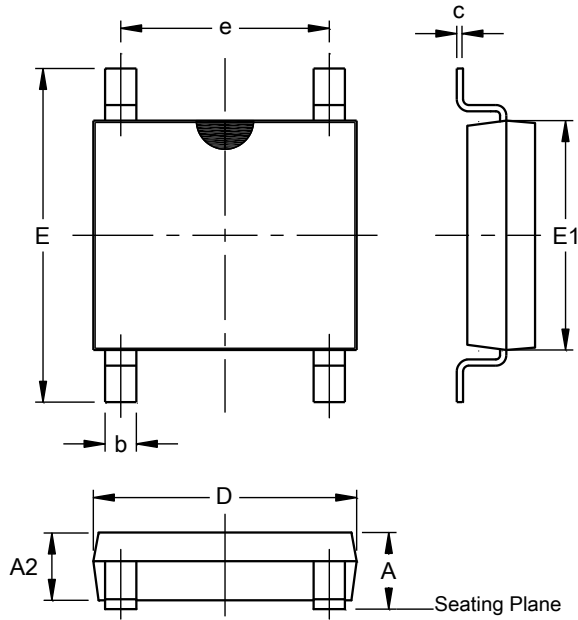


Figure 5. Typical Total Capacitance

## Package Outline Dimensions

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

SOPA-4 (Type B)

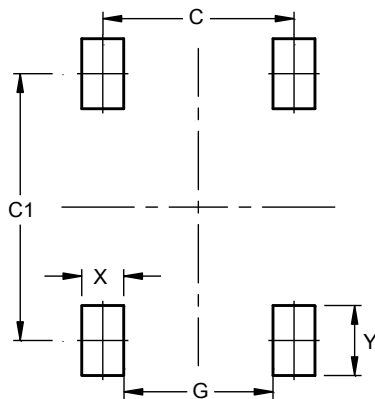


SOPA-4 (Type B)			
Dim	Min	Max	Typ
A	1.15	1.30	--
A2	1.00	1.25	--
b	0.50	0.70	--
c	0.15	0.25	--
D	4.80	5.30	--
E	6.00	6.80	--
E1	4.20	4.60	--
e	3.80	4.20	--
All Dimensions in mm			

## Suggested Pad Layout

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

SOPA-4 (Type B)



Dimensions	Value (in mm)
C	4.10
C1	5.72
G	3.20
X	0.90
Y	1.50

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