

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

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

Characteristic		Symbol	S3 A/AB	S3 B/BB	S3 D/DB	S3 G/GB	S3 J/JB	S3 K/KB	S3 M/MB	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		$egin{array}{c} V_{RRM} \ V_{RWM} \ V_{R} \end{array}$	50	100	200	400	600	800	1000	٧
RMS Reverse Voltage		V <sub>R(RMS)</sub>	30	70	140	280	420	560	700	V
Average Rectified Output Current	@ T <sub>T</sub> = +75°C	lo				3.0				Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load		I <sub>FSM</sub>	100					Α		

### **Thermal Characteristics**

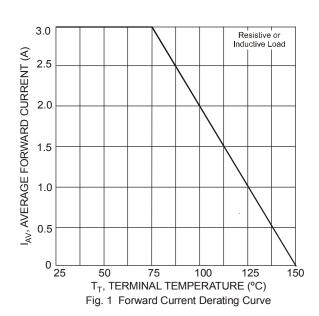
Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Terminal (Note 5)	$R_{\theta JT}$	10	°C/W
Operating and Storage Temperature Range	T <sub>J,</sub> T <sub>STG</sub>	-65 to +150	°C

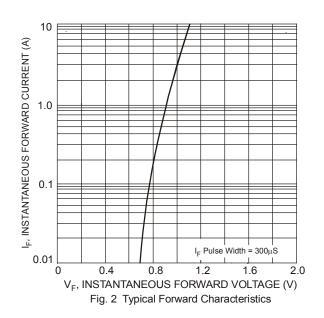
# **Electrical Characteristics** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	;	Symbol	Value	Unit
Forward Voltage	$@I_F = 3.0A$	V <sub>FM</sub>	1.15	V
Peak Reverse Current at Rated DC Blocking Voltage	@ T <sub>A</sub> = +25°C @ T <sub>A</sub> = +125 °C	I <sub>RM</sub>	10 250	μA
Typical Total Capacitance (Note 6)		C <sub>T</sub>	40	pF

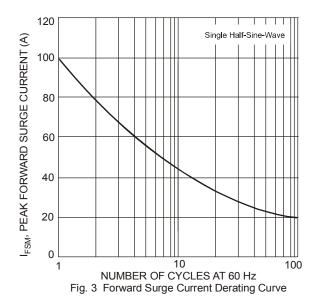
Notes: 6. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

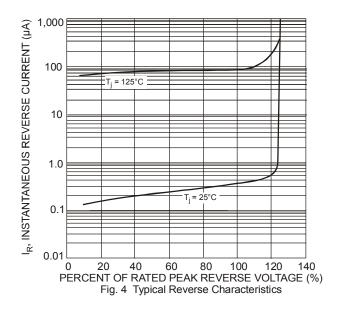
5. Thermal resistance: Junction to Terminal, unit mounted on PC board with 5.0 mm² (0.013 mm thick) copper pad as heat sink.





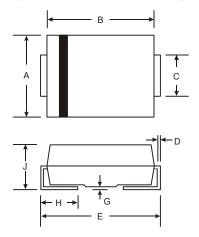






## **Package Outline Dimensions**

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

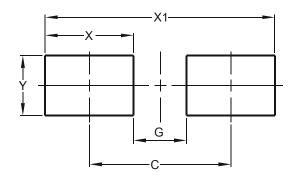


SMB					
Dim	Min	Max			
Α	3.30	3.94			
В	4.06	4.57			
С	1.96	2.21			
D	0.15	0.31			
E	5.00	5.59			
G	0.05	0.20			
Н	0.76	1.52			
J	2.00	2.50			
All Dimensions in mm					

SMC				
Dim	Min	Max		
Α	5.59	6.22		
В	6.60	7.11		
С	2.75	3.18		
D	0.15	0.31		
Е	7.75	8.13		
G	0.10	0.20		
Н	0.76	1.52		
J	2.00	2.50		
All Dimensions in mm				

# **Suggested Pad Layout**

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.



SMB			
Dimensions	Value (in mm)		
С	4.30		
G	1.80		
Х	2.50		
X1	6.80		
Y	2.30		

SMC		
Dimensions	Value (in mm)	
С	6.80	
G	4.40	
Х	2.50	
X1	9.40	
Υ	3.30	



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