

## 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	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	30	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>RM</sub>		
DC Forward Current	I <sub>F</sub> (Per diode)	0.3	A
Average Rectified Output Current	I <sub>o</sub>		
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	1	A

## Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance	R <sub>θJA</sub>	261	°C/W
Thermal Resistance Junction to Ambient (Note 5)			
Typical Thermal Resistance	R <sub>θJA</sub>	445	°C/W
Thermal Resistance Junction to Ambient (Note 6)			
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	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V <sub>F</sub>	—	—	240	mV	I <sub>F</sub> = 0.1mA, T <sub>J</sub> = +25°C
		—	—	300		I <sub>F</sub> = 1mA, T <sub>J</sub> = +25°C
		—	—	375		I <sub>F</sub> = 10mA, T <sub>J</sub> = +25°C
		—	—	430		I <sub>F</sub> = 30mA, T <sub>J</sub> = +25°C
		—	—	500		I <sub>F</sub> = 100mA, T <sub>J</sub> = +25°C
		—	—	580		I <sub>F</sub> = 200mA, T <sub>J</sub> = +25°C
		—	530	—		I <sub>F</sub> = 300mA, T <sub>J</sub> = +25°C
Leakage Current (Note 7)	I <sub>R</sub>	—	—	5	μA	V <sub>R</sub> = 30V, T <sub>J</sub> = +25°C
		—	0.63	3		V <sub>R</sub> = 25V, T <sub>J</sub> = +25°C
		—	—	1		V <sub>R</sub> = 10V, T <sub>J</sub> = +25°C
		—	0.35	0.8		V <sub>R</sub> = 5V, T <sub>J</sub> = +25°C
		—	7	20		V <sub>R</sub> = 10V, T <sub>J</sub> = +70°C
		—	18	50		V <sub>R</sub> = 10V, T <sub>J</sub> = +85°C
		—	—	—		V <sub>R</sub> = 10V, T <sub>J</sub> = +85°C

Notes: 5. Device mounted on Polyimide substrate, 10cm x 10cm, 2oz, copper, PC boards.  
 6. Device mounted on FR-4 PCB, 2oz. Copper, minimum recommended pad layout per <http://www.diodes.com/datasheets/ap02001.pdf>.  
 7. Short duration pulse test used to minimize self-heating effect.

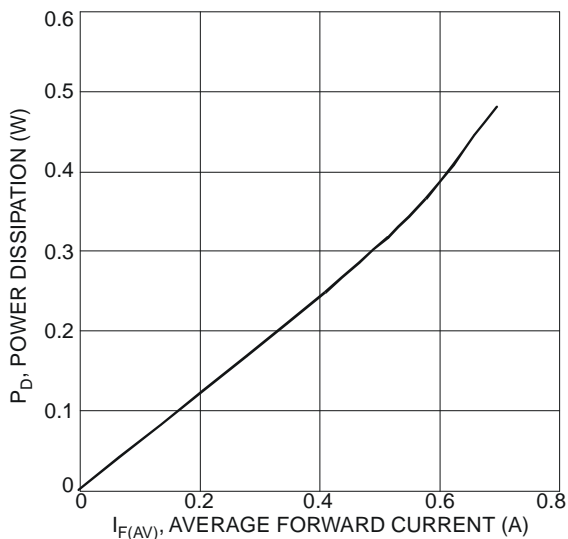


Figure 1. Forward Power Dissipation

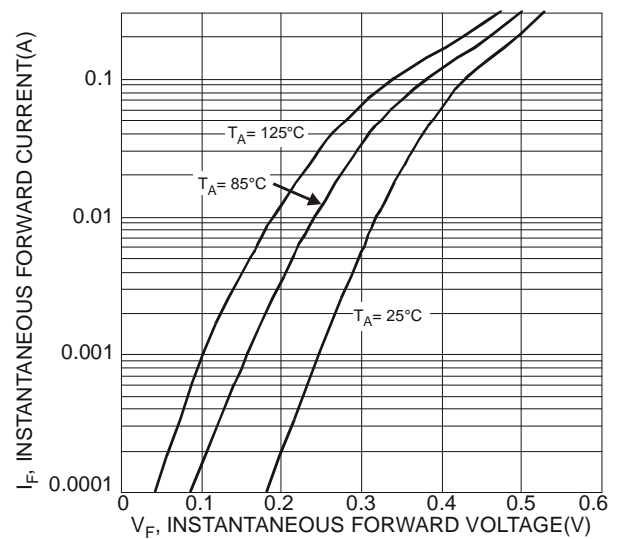
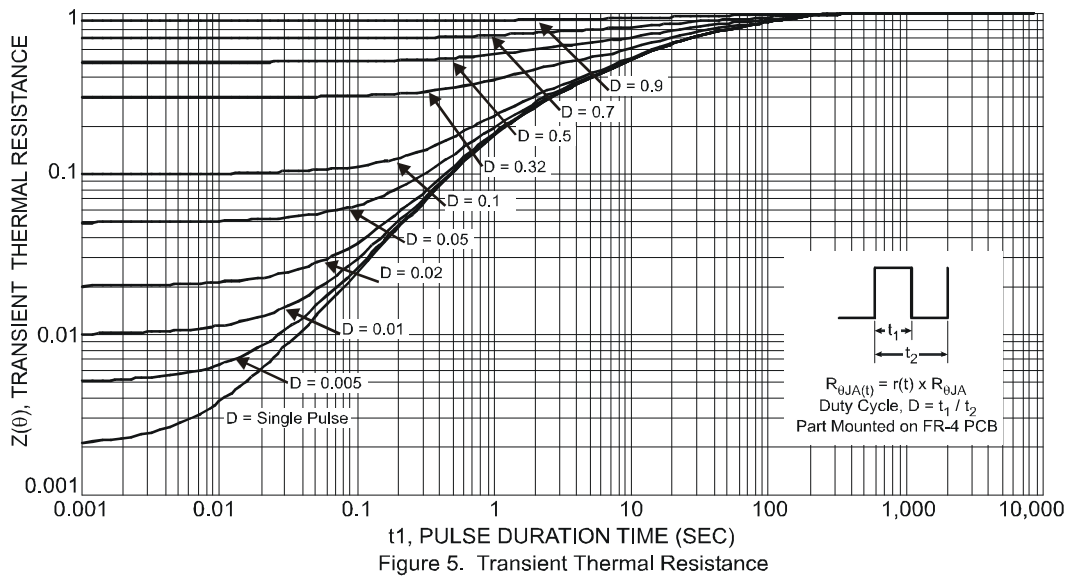
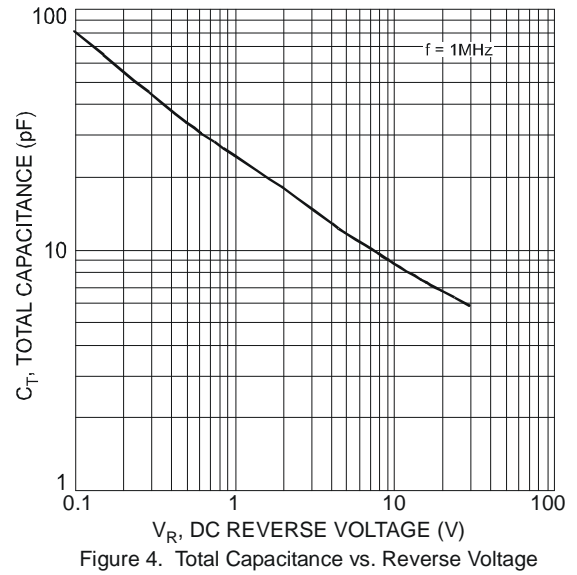
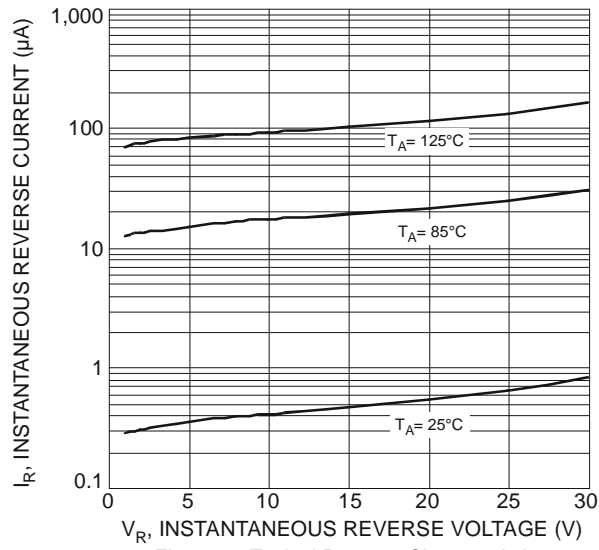
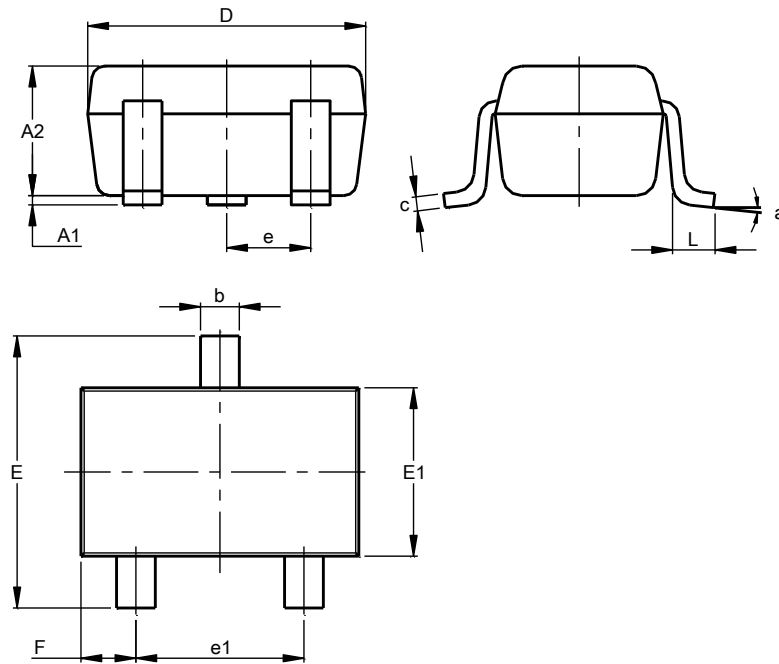


Figure 2. Typical Forward Characteristics



## Package Outline Dimensions

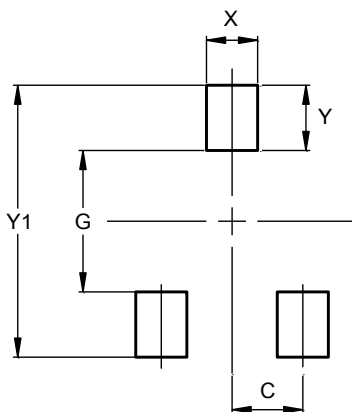
Please see AP02002 at <http://www.diodes.com/datasheets/ap02002.pdf> for the latest version.



SOT323			
Dim	Min	Max	Typ
A1	0.00	0.10	0.05
A2	0.90	1.00	0.95
b	0.25	0.40	0.30
c	0.10	0.18	0.11
D	1.80	2.20	2.15
E	2.00	2.20	2.10
E1	1.15	1.35	1.30
e	0.650 BSC		
e1	1.20	1.40	1.30
F	0.375	0.475	0.425
L	0.25	0.40	0.30
a	8°		
All Dimensions in mm			

## Suggested Pad Layout

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



Dimensions	Value (in mm)
C	0.650
G	1.300
X	0.470
Y	0.600
Y1	2.500

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