

## 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 Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	30	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	21	V
Average Rectified Output Current	I <sub>O</sub>	3.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load	I <sub>FSM</sub>	30	A

## Thermal Characteristics

Characteristic	Symbol	Typ	Max	Unit
Thermal Resistance Junction to Soldering Point	R <sub>θJS</sub>	—	3	°C/W
Thermal Resistance Junction to Ambient Air	(Note 5) R <sub>θJA</sub>	130	—	°C/W
Power Dissipation	(Note 6) (Note 7) (Note 8) P <sub>D</sub>	— — —	2.5 4.0 4.5	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	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 9)	V <sub>(BR)R</sub>	30	—	—	V	I <sub>R</sub> = 5.0mA
Forward Voltage	V <sub>F</sub>	—	0.28	—	V	I <sub>F</sub> = 0.5A, T <sub>J</sub> = +25°C
		—	0.30	0.35		I <sub>F</sub> = 1.0A, T <sub>J</sub> = +25°C
		—	0.18	0.29		I <sub>F</sub> = 1.0A, T <sub>J</sub> = +125°C
		—	0.33	0.40		I <sub>F</sub> = 2.0A, T <sub>J</sub> = +25°C
		—	0.22	0.37		I <sub>F</sub> = 2.0A, T <sub>J</sub> = +125°C
		—	0.35	0.45		I <sub>F</sub> = 3.0A, T <sub>J</sub> = +25°C
		—	0.26	0.42		I <sub>F</sub> = 3.0A, T <sub>J</sub> = +125°C
Reverse Current (Note 9)	I <sub>R</sub>	—	0.27	1.0	mA	T <sub>J</sub> = +25°C, V <sub>R</sub> = 30V
		—	55	90	mA	T <sub>J</sub> = +100°C, V <sub>R</sub> = 30V

- Notes:
5. FR-4 PCB, 2 oz. Copper, minimum recommended pad layout per <http://www.diodes.com>. T<sub>A</sub> = +25°C.
  6. Device mounted on FR-4 PCB, 25mm<sup>2</sup> pad area.
  7. Device mounted on FR-4 PCB, 75mm<sup>2</sup> pad area.
  8. Aluminum PCB with copper mounting pad area of 75mm<sup>2</sup>.
  9. Short duration pulse test used to minimize self-heating effect.

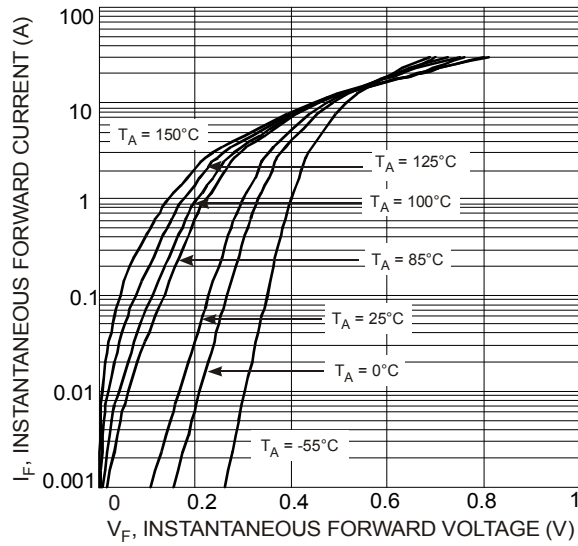


Fig. 1 Typical Forward Characteristics

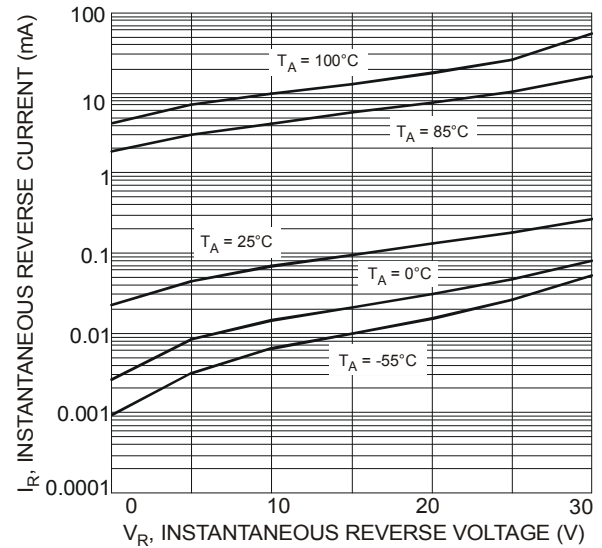


Fig. 2 Typical Reverse Characteristics

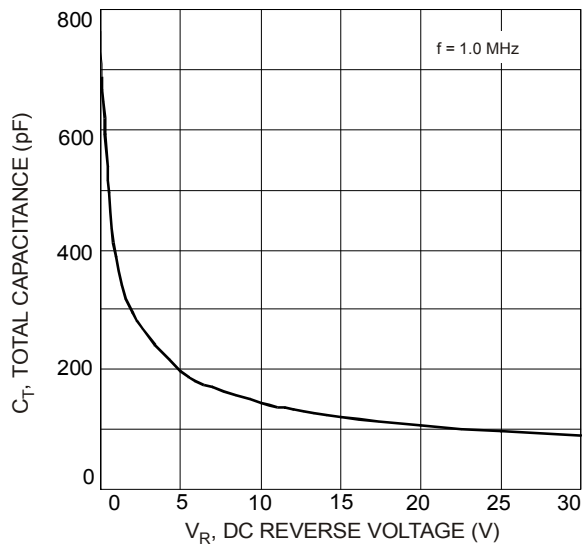


Fig. 3 Total Capacitance vs. Reverse Voltage

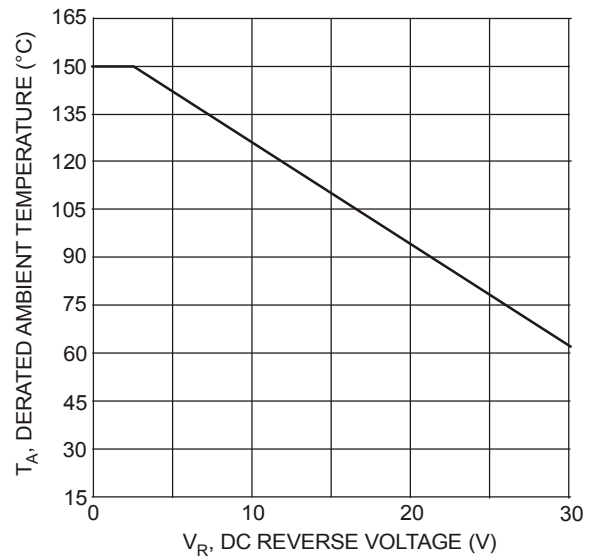
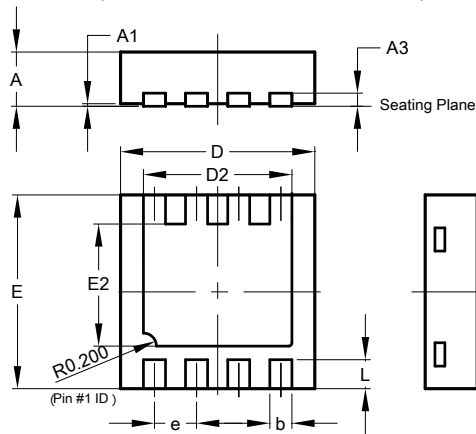


Fig. 4 Operating Temperature Derating

## Package Outline Dimensions

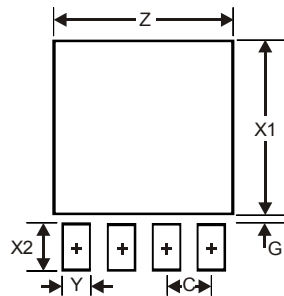
Please see AP02002 at <http://www.diodes.com/datasheets/ap02002.pdf> for latest version.



U-DFN3030-8			
Dim	Min	Max	Typ
A	0.57	0.63	0.60
A1	0	0.05	0.02
A3	-	-	0.15
b	0.29	0.39	0.34
D	2.90	3.10	3.00
D2	2.19	2.39	2.29
e	-	-	0.65
E	2.90	3.10	3.00
E2	1.64	1.84	1.74
L	0.30	0.60	0.45
All Dimensions in mm			

## Suggested Pad Layout

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



Dimensions	Value (in mm)
Z	2.59
G	0.11
X1	2.49
X2	0.65
Y	0.39
C	0.65

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