



6.0A SILICON RECTIFIER

Description

- High Surge Current Capability
- Low Leakage and Forward Voltage Drop
- Lead Free Finish, RoHS Compliant (Notes 1 & 2)

Mechanical Data

- Case: R-6
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish Tin. Axial Leads, Solderable per MIL-STD-202, Method 208 (3)
- Polarity: Color Band Indicates Cathode
- Approximate Weight: 2.1 grams

Ordering Information (Note 3)

Part Number	Case	Packaging			
6A05-T	R-6	500/Tape & Reel, 13-inch			
6A1-T	R-6	500/Tape & Reel, 13-inch			
6A2-T	R-6	500/Tape & Reel, 13-inch			
6A4-T	R-6	500/Tape & Reel, 13-inch			
6A6-T	R-6	500/Tape & Reel, 13-inch			
6A8-T	R-6	500/Tape & Reel, 13-inch			
6A10-T	R-6	500/Tape & Reel, 13-inch			

Notes:

- 1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
- 2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free
- 3. For packaging details, go to our website at https://www.diodes.com/design/support/packaging/diodes-packaging/.

Marking Information

B. Marking on the semiconductor:

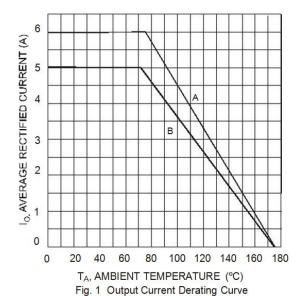


Maximum Ratings and Electrical Characteristics (@TA = +25°C, unless otherwise specified.)

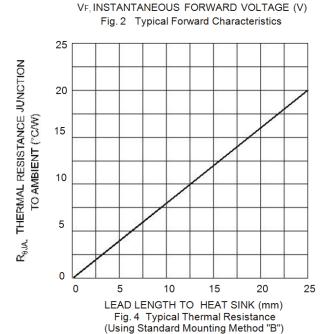
Ratings at +25°C ambient temperature unless otherwise specified. Single phase, halfwave, 60Hz, resistive or inductive load.

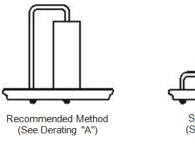
Characteristic	Symbol	6A05	6A1	6A2	6A4	6A6	6A8	6A10	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 9.5mm Lead Length @ $T_A = +75^{\circ}C$ (See Figure 1)	I _(AV)	6.0					Α		
Peak Forward Surge Current 8.3ms Single Half Sine- Wave Superimposed on Rated Load	I _{FSM}	400				А			
Maximum Instantaneous Forward Voltage at 6.0A DC	V_{FM}	0.90				٧			
Maximum DC Reverse Current @ $T_A = +25^{\circ}C$ at Rated Blocking Voltage @ $T_A = +100^{\circ}C$	I _{RM}	10 100					μΑ		
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175			•	°C			





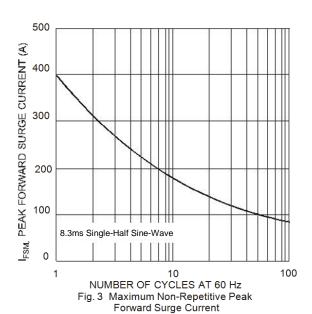
40 IF, INSTANTANEOUS FORWARD CURRENT (A) T_J=25°C 1.0 Pulse Width = 300ms 2% Duty Cycle 0.6 8.0 1.6 1.0





Standard Method (See Derating "B") Ground Plane: 25mm² equivalent

copper surface area Printed Circuit Board Mounting Method

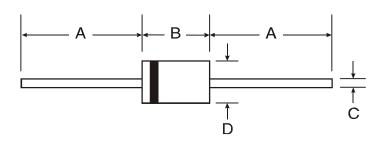




Package Outline Dimensions

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





R-6						
Dim	Min	Max				
Α	25.40	1				
В	8.60	9.10				
С	1.20	1.30				
D	8.60	9.10				
All Dimensions in mm						

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