



6A05 - 6A10

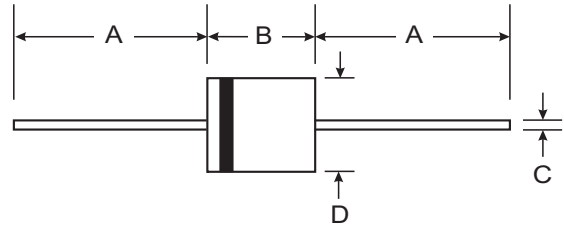
6.0A SILICON RECTIFIER

Features

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

Mechanical Data

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



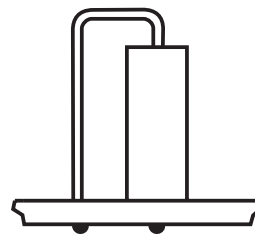
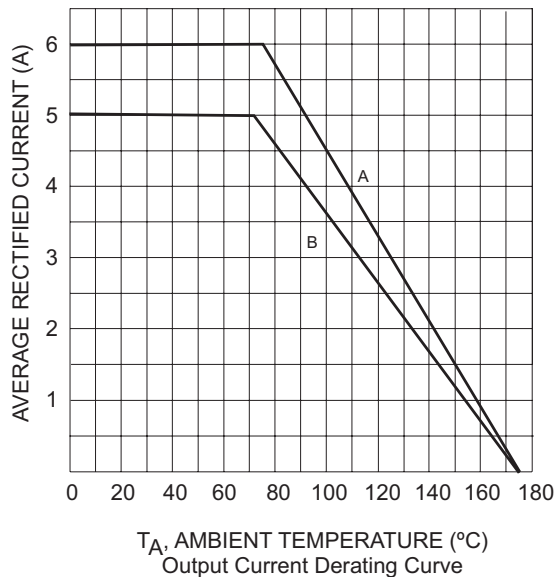
R-6		
Dim	Min	Max
A	25.40	—
B	8.60	9.10
C	1.20	1.30
D	8.60	9.10
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @25°C unless otherwise specified

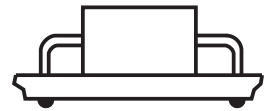
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, halfwave, 60Hz, resistive or inductive load.

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 @ $T_A = 75^\circ\text{C}$ (See Fig. 1)	I_{AV}	6.0							A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	400							A
Maximum Instantaneous Forward Current at 6.0A DC	V_F	0.90							V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_R	10 100							μA
Operating and Storage Temperature Range	T_J , T_{STG}	-65 to +175							$^\circ\text{C}$

Notes: 1. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see *EU Directive Annex Notes 5 and 7*.



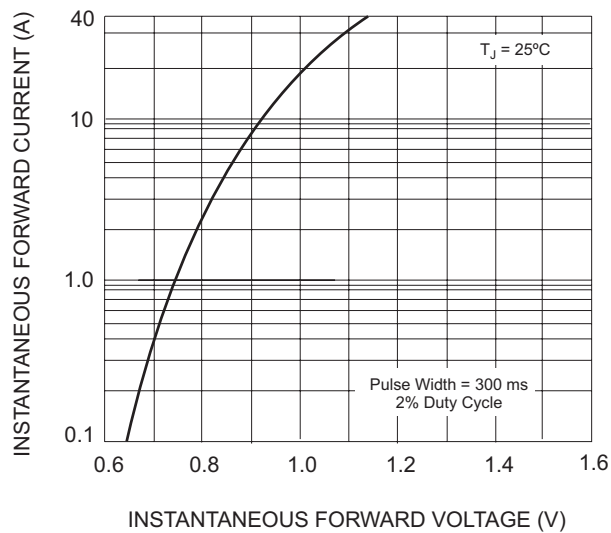
Recommended Method
(See Derating "A")



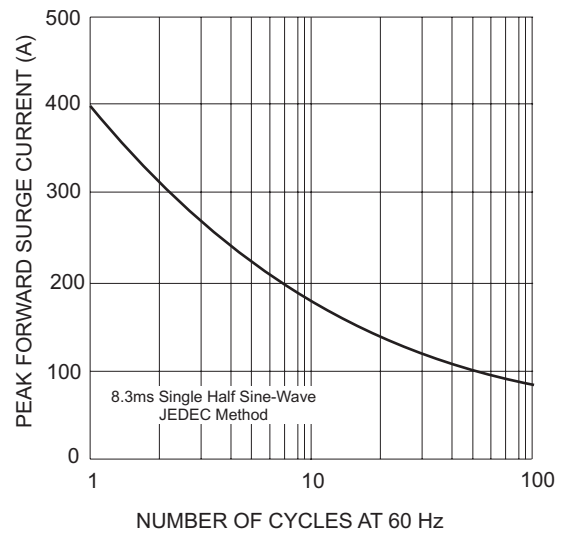
Standard Method
(See Derating "B")

Ground Plane: 25mm^2 equivalent
copper surface area

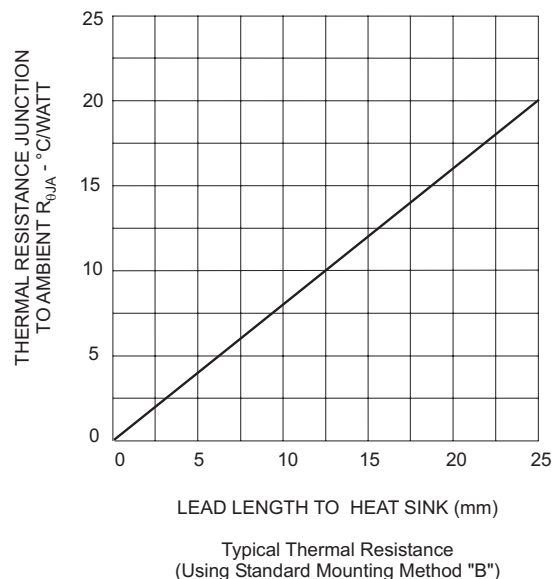
Printed Circuit Board Mounting Method



Typical Forward Characteristics



Maximum Non-Repetitive Peak Forward Surge Current



Ordering Information (Note 2)

Device	Packaging	Shipping
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: 2. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>