

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 6A05 - 6A10

# **Features**

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

# **Mechanical Data**

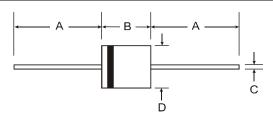
Case: R-6

Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

Moisture Sensitivity: Level 1 per J-STD-020C

Terminals: Finish — Tin. Axial Leads, Solderable per MIL-STD-202, Method 208 @3

Polarity: Color Band Indicates Cathode Ordering Information: See Page 3 Approximate Weight: 2.1 grams



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

#### **Maximum Ratings and Electrical Characteristics** @T<sub>A</sub> = 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 <sub>A</sub> = 75°C (See Fig. 1)					Α				
Peak Forward Surge Current 8.3 ms single half sine- wave superimposed on rated load	I <sub>FSM</sub>				400				Α
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	IDM	10 100					μΑ		
Operating and Storage Temperature Range	$T_j$ , $T_{STG}$	-65 to +175					°C		

Notes: 1. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see EU Directive Annex Notes 5 and 7.



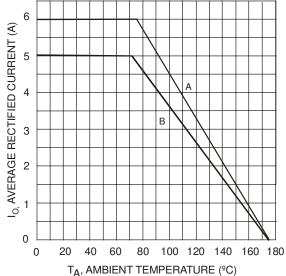
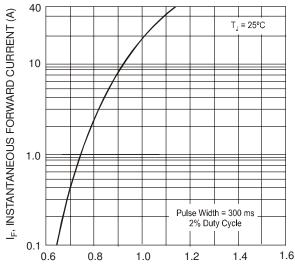
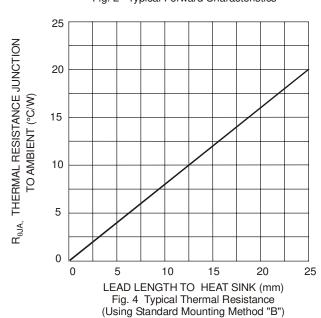


Fig. 1 Output Current Derating Curve

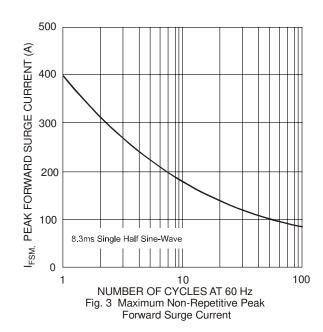


 $V_{\rm F.}$  INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics



Recommended Method (See Derating "A") Standard Method (See Derating "B") Ground Plane: 25mm<sup>2</sup> equivalent copper surface area

Printed Circuit Board Mounting Method





# 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, go to our website at http://www.diodes.com/datasheets/ap02008.pdf.

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