

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!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









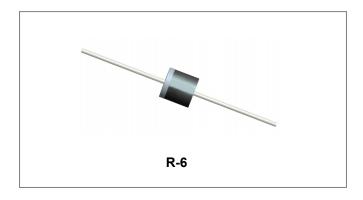




6A05 THRU 6A10

GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 6.0 Amperes



Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250 ℃ /10 seconds,0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension
- This is a Pb Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: R-6 molded plastic
- Terminals: Plated axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 2.1 grams

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

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Type Number	Symbol	6A05	6A1	6A2	6A4	6A6	6A8	6A10	Units
Maximum repetitive peak reverse voltage Maximum DC blocking voltage	$V_{RRM} \ V_{DC}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum average forward rectified current 0.375"(9.5mm) lead length at @T _A = 60°C	I _(AV)	6.0			А				
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	400			А				
Maximum instantaneous forward voltage at 6.0A	VF				0.95				V
Maximum DC reverse current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _R	10.0 400			μA				
Typical Junction Capacitance (Note 1)	unction Capacitance (Note 1) C _J 150			pF					
Typical Thermal Resistance (Note 2)	R _{θJA}				10.0				°C/W
Operating junction and storage temperature range	T _J , T _{STG}		·	_	65 to +1	75			°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

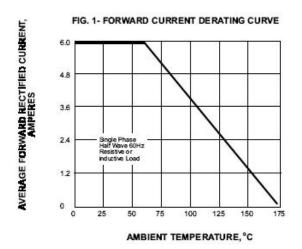
- 2. Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length, P.C.B. mounted
 - China Germany Korea Singapore United States
 - http://www.smc-diodes.com sales@ smc-diodes.com •

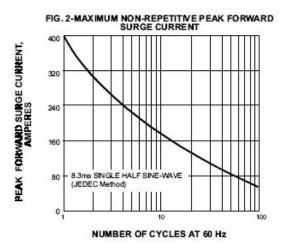


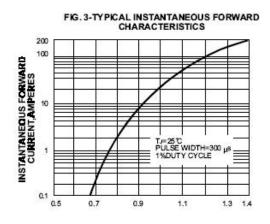


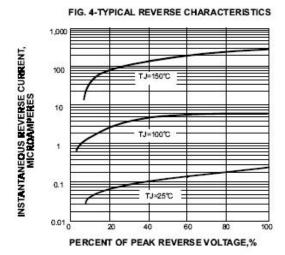


Ratings and Characteristics Curves

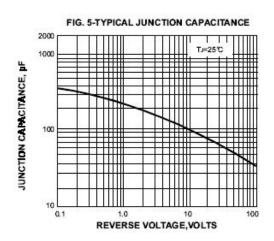


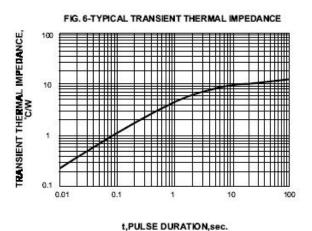












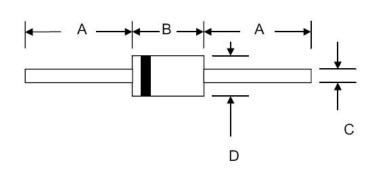
- China Germany Korea Singapore United States
 - http://www.smc-diodes.com sales@ smc-diodes.com •







Mechanical Dimensions R-6



CVMDOL	Millim	neters	Inches			
SYMBOL	Min.	Max.	Min.	Max.		
А	24.0	-	0.940	-		
В	8.60	9.10	0.340	0.360		
С	1.2	1.3	0.048	0.052		
D	8.60	9.10	0.340	0.360		

Ordering Information

Device	Package	Shipping		
6A05-6A10	R-6 (Pb-Free)	500pcs / Tape		

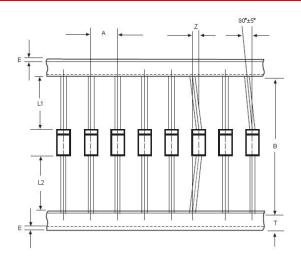
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



6A05 = Type Number

Carrier Tape Specification R-6



SYMBOL	Millimeters			
STIVIBUL	Min.	Max.		
А	9.50	10.50		
В	50.9	53.9		
Z	-	1.20		
Т	5.60	6.40		
E	-	0.80		
IL1-L2I	-	1.0		

- China Germany Korea Singapore United States
 - http://www.smc-diodes.com sales@ smc-diodes.com •







DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC Sangdest Microelectronics (Nanjing) Co., Ltd sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall SMC Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC Sangdest Microelectronics (Nanjing) Co., Ltd assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall SMC Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC Sangdest Microelectronics (Nanjing) Co., Ltd.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC Sangdest Microelectronics (Nanjing) Co., Ltd.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..