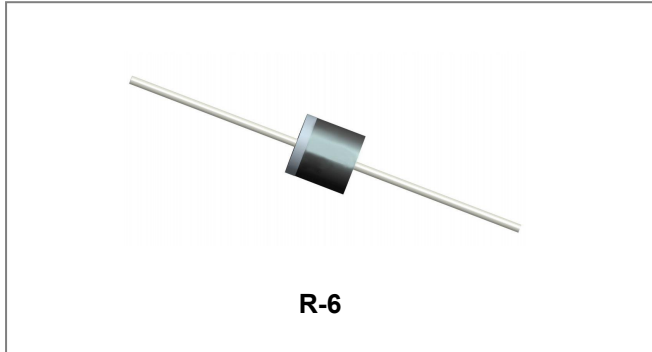


## 6A05G THRU 6A10G

### GLASS PASSIVATED 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°C /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 @T<sub>A</sub>=25°C unless otherwise specified

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

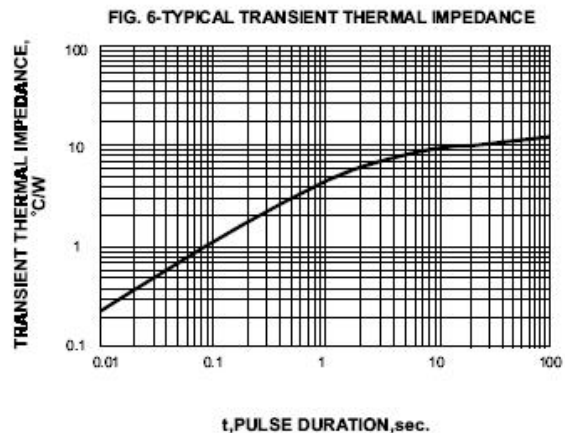
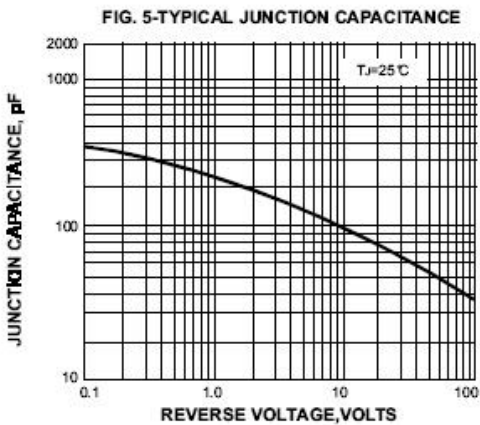
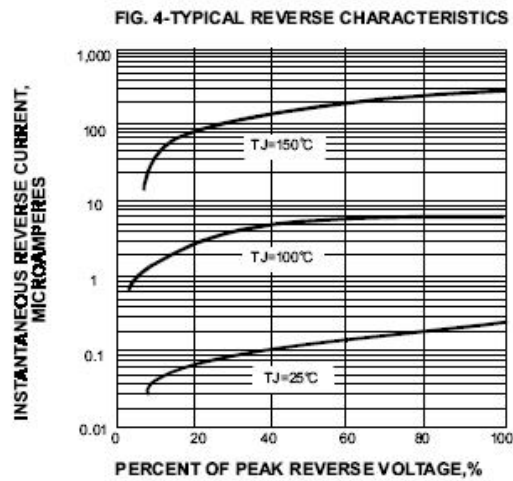
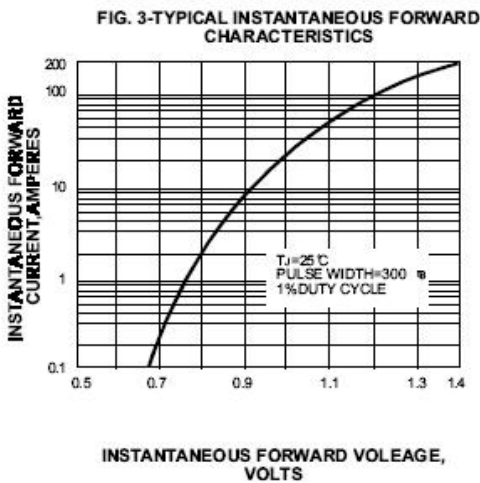
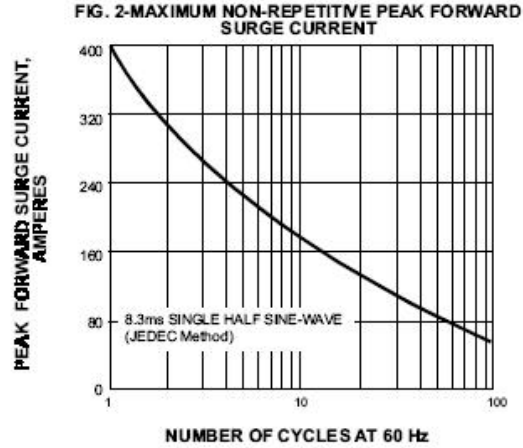
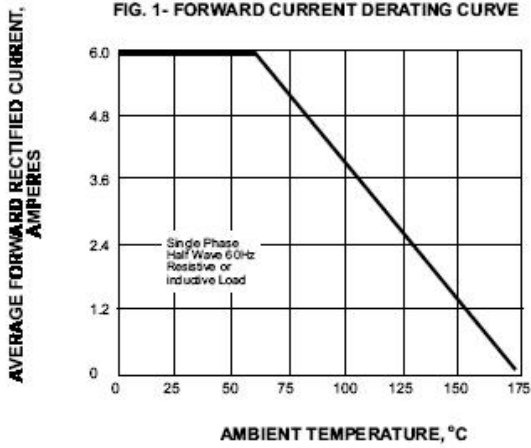
Type Number	Symbol	6A05G	6A1G	6A2G	6A4G	6A6G	6A8G	6A10G	Units
Maximum repetitive peak reverse voltage Maximum DC blocking voltage	V <sub>RRM</sub> V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum average forward rectified current 0.375"(9.5mm) lead length at @T <sub>A</sub> = 60°C	I <sub>(AV)</sub>	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	300							A
Maximum instantaneous forward voltage at 6.0A	V <sub>F</sub>	0.95							V
Maximum DC reverse current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>R</sub>	10.0 400							μA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	150							pF
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	10.0							°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175							°C

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

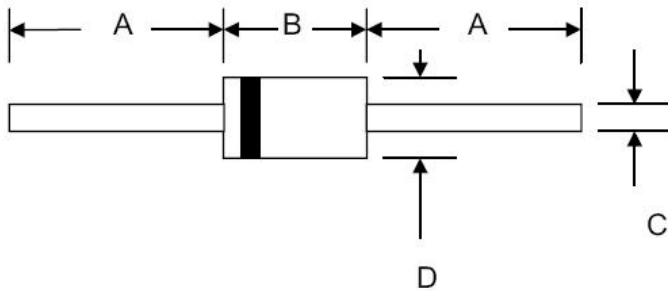
2. Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length, P.C.B. mounted

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) •

**Ratings and Characteristics Curves**



**Mechanical Dimensions R-6**



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	8.60	9.10	0.340	0.360
C	1.2	1.3	0.048	0.052
D	8.60	9.10	0.340	0.360

**Ordering Information**

Device	Package	Shipping
6A05G-6A10G	R-6(Pb-Free)	500pcs / tape
6A05GTA-6A10GTA	R-6(Pb-Free)	500pcs / tape
6A05GTR-6A10GTR	R-6(Pb-Free)	500pcs / reel

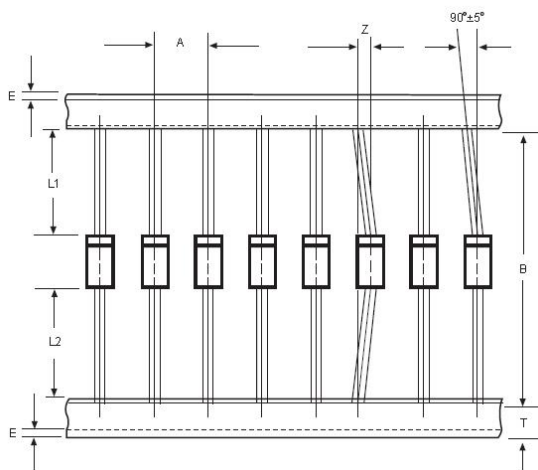
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**



6A05G = Type Number

**Carrier Tape Specification R-6**



SYMBOL	Millimeters	
	Min.	Max.
A	9.50	10.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

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