THE DATASHEET OF

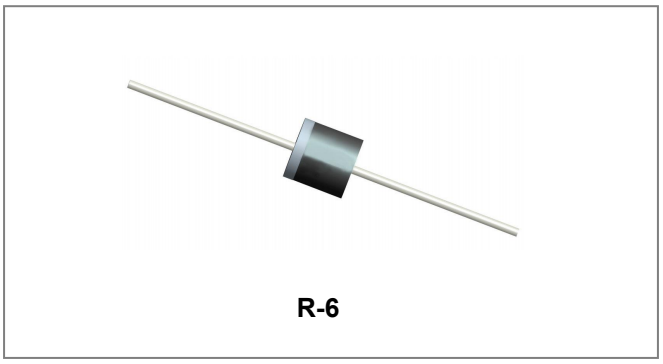
6A6

Technical Data
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6A05 THRU 6A10

GENERAL PURPOSE SILICON RECTIFIER

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



R-6

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 @T_A=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							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	400							A
Maximum instantaneous forward voltage at 6.0A	V_F	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)	C_J	150							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	10.0							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-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

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RoHS

Ratings and Characteristics Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

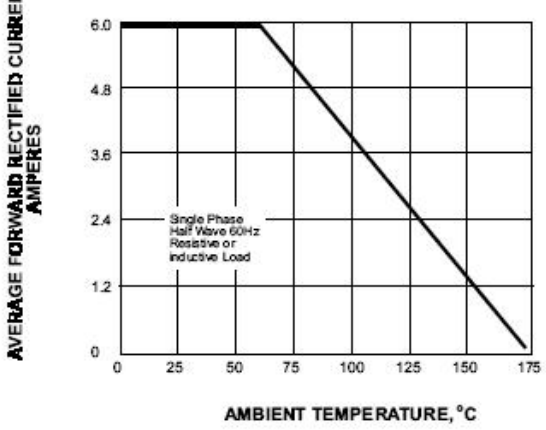


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

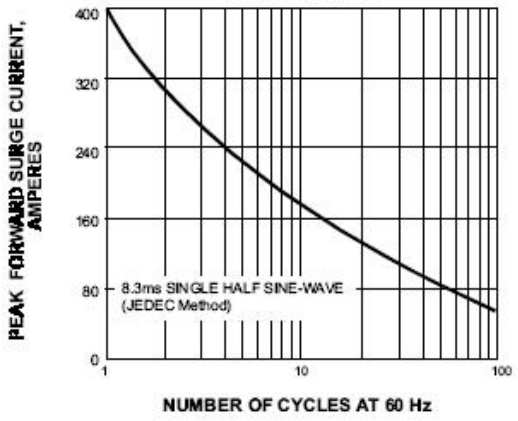


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

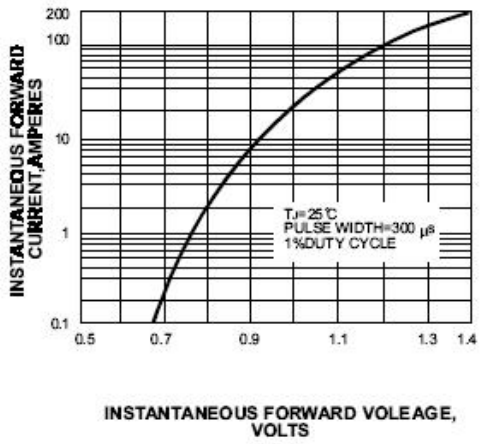


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

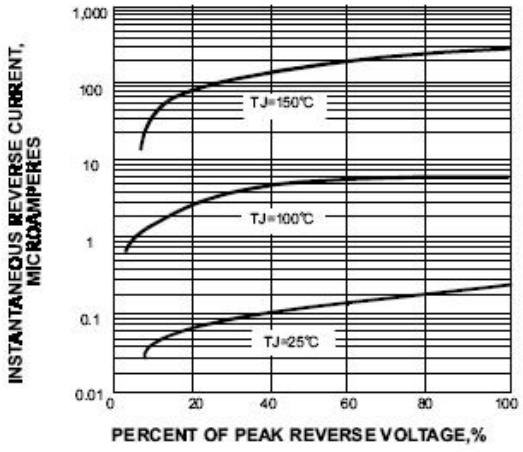


FIG. 5-TYPICAL JUNCTION CAPACITANCE

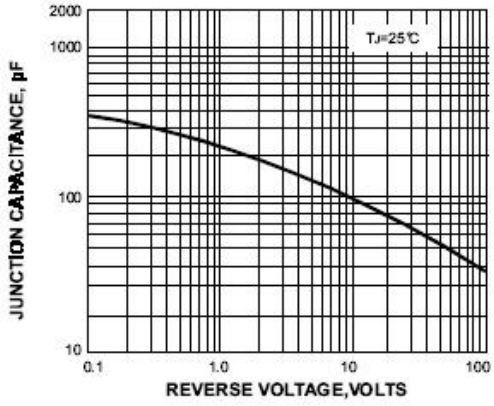
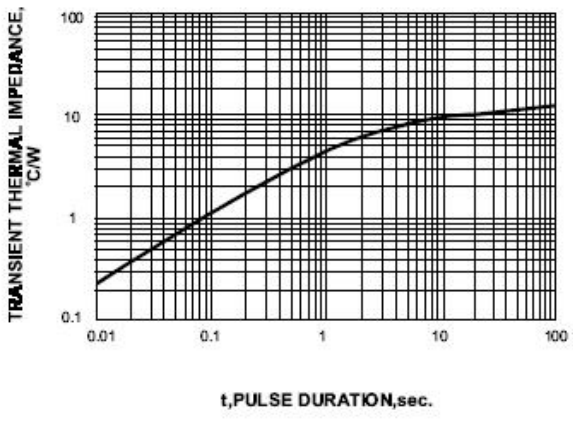


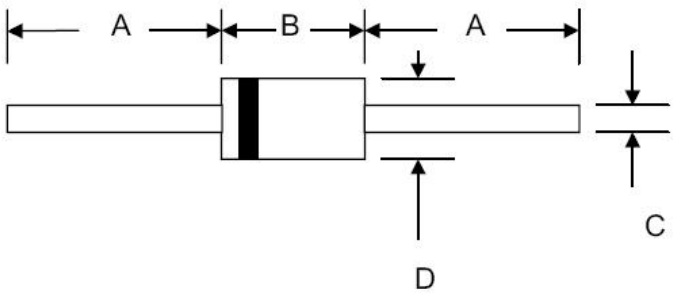
FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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Mechanical Dimensions R-6



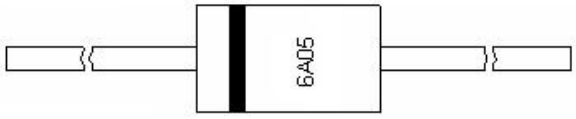
SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	24.0	-	0.940	-
B	8.60	9.10	0.340	0.360
C	1.2	1.3	0.048	0.052
D	8.60	9.10	0.340	0.360

Ordering Information

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

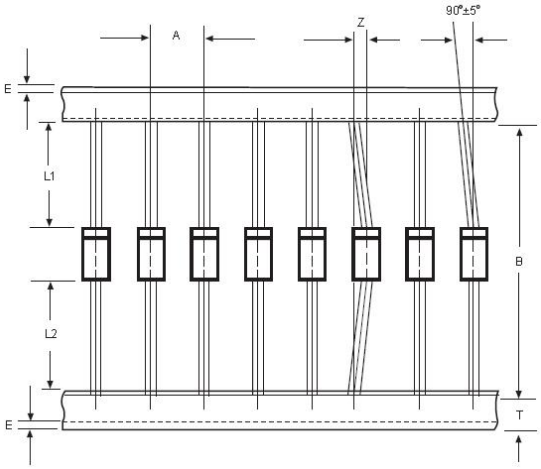
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



6A05 = Type Number

Carrier Tape Specification R-6



SYMBOL	Millimeters	
	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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