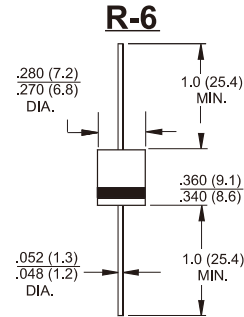




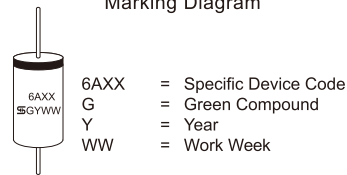
6A05 - 6A100

6.0 AMPS. Silicon Rectifiers



Dimensions in inches and (millimeters)

Marking Diagram



Features

- ✦ High efficiency, Low VF
- ✦ High current capability
- ✦ High reliability
- ✦ High surge current capability
- ✦ Low power loss
- ✦ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- ✦ Cases: Molded plastic
- ✦ Epoxy: UL 94V-0 rate flame retardant
- ✦ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✦ Polarity: Color band denotes cathode
- ✦ High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✦ Weight: 1.65 grams

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

Type Number	Symbol	6A 05	6A 10	6A 20	6A 40	6A 60	6A 80	6A 100	Units
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 .375 (9.5mm) Lead Length @ $T_A = 60^\circ C$	$I_{F(AV)}$	6.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	250							A
Maximum Instantaneous Forward Voltage @ 6.0A	V_F	0.95							V
Maximum DC Reverse Current at @ $T_A=25^\circ C$ Rated DC Blocking Voltage (Note 1) @ $T_A=125^\circ C$	I_R	10 400							 uA
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @ $T_A=75^\circ C$	$I_{R(AV)}$	50							uA
Typical Junction Capacitance (Note 3)	C_j	90							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	35							°C/W
Operating Temperature Range	T_J	-65 to +150							°C
Storage Temperature Range	T_{STG}	-65 to +150							°C

Notes: 1. Pulse Test with PW=300 usec,1% Duty Cycle
 2. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.
 3. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

RATINGS AND CHARACTERISTIC CURVES (6A05 THRU 6A100)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

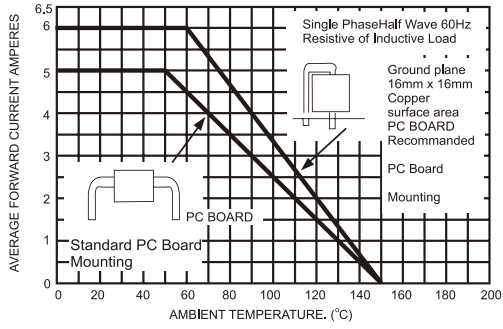


FIG.2- TYPICAL REVERSE CHARACTERISTICS

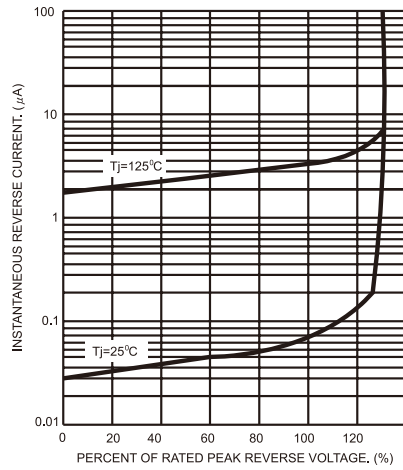


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

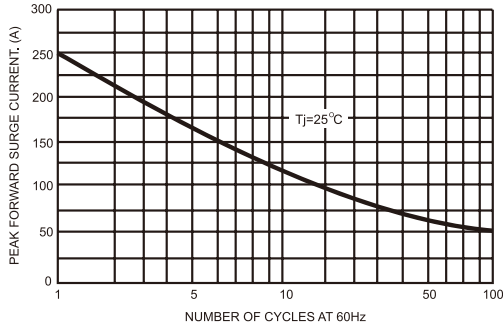


FIG.5- TYPICAL FORWARD CHARACTERISTICS

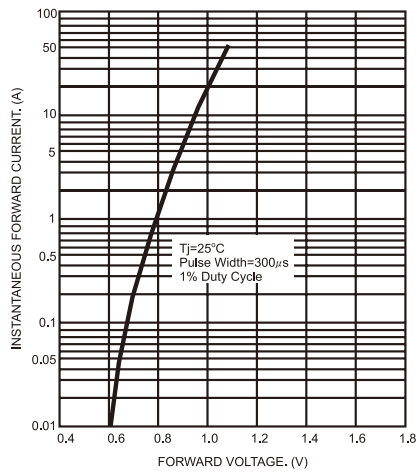


FIG.4- TYPICAL JUNCTION CAPACITANCE

