



## 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/10s  
/.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%

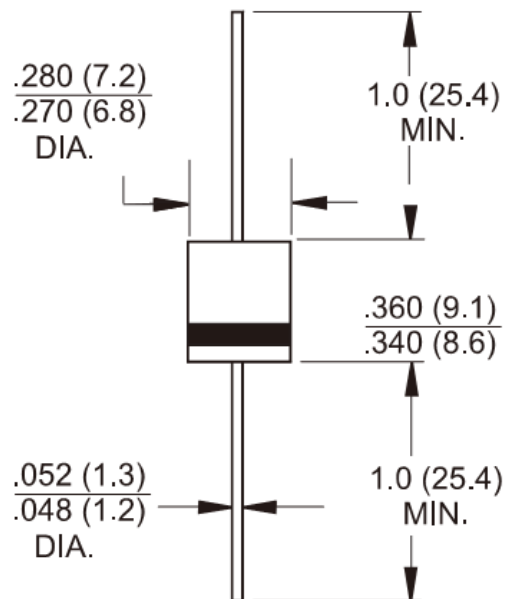
| Type Number                                                                                           | Symbol          | 6A<br>05      | 6A<br>10 | 6A<br>20 | 6A<br>40 | 6A<br>60 | 6A<br>80 | 6A<br>100 | Units    |
|-------------------------------------------------------------------------------------------------------|-----------------|---------------|-------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

Note1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Note3: Mount on Cu-Pad Size 16mm × 16mm on P.C.B.

## 6A05 - 6A100 6.0 AMPS. Silicon Rectifiers R-6



### Dimensions in inches and (millimeters)



### Marking Diagram

|      |                        |
|------|------------------------|
| 6AXX | = Specific Device Code |
| G    | = Green Compound       |
| Y    | = Year                 |
| WW   | = Work Week            |

## RATINGS AND CHARACTERISTIC CURVES (6A05 THRU 6A100)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

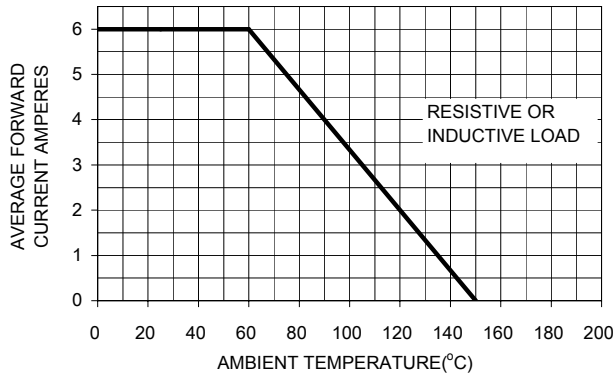


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

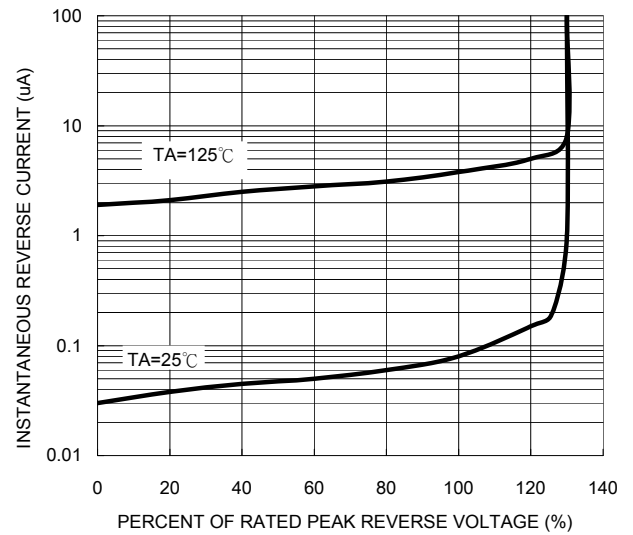


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

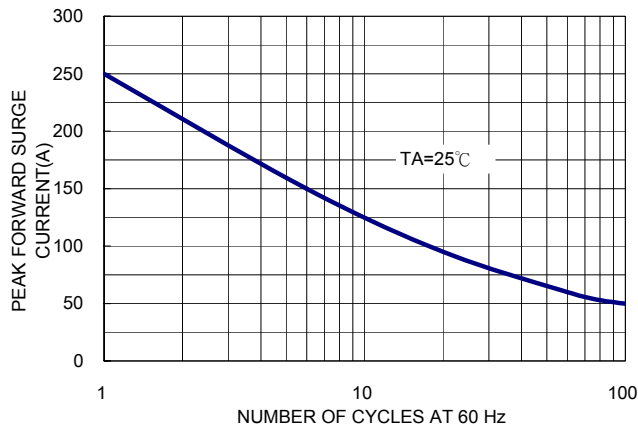


Fig. 5- TYPICAL FORWARD CHARACTERISTICS

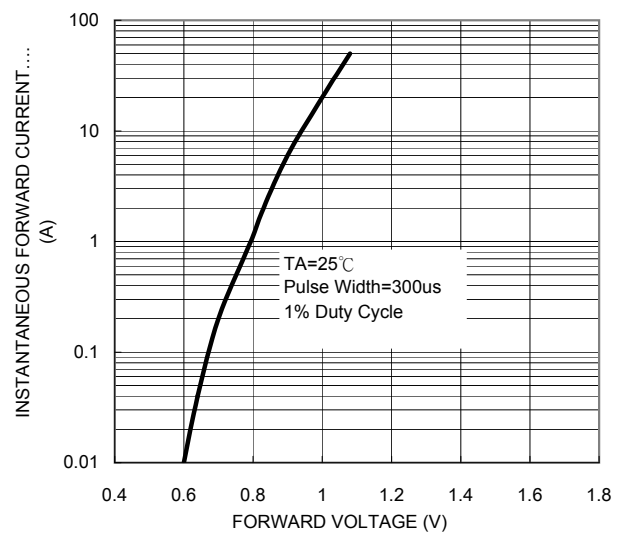
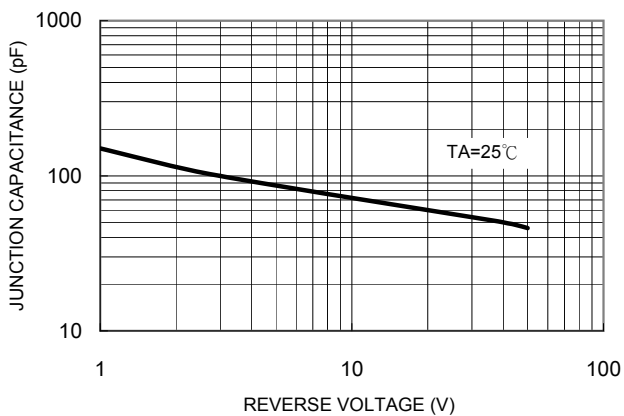


FIG. 4- TYPICAL JUNCTION CAPACITANCE



# AMEYA360

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