



AXIAL SILASTIC GUARD JUNCTION STANDARD RECTIFIER

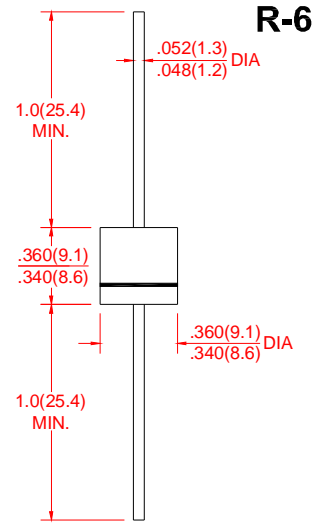
| | | |
|-----------------------|----------------------|-------------------------|
| 6A05 THRU 6A10 | VOLTAGE RANGE | 50 to 1000 Volts |
| | CURRENT | 6.0 Ampere |

FEATURES

- Low coat construction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 secods/.375”(9.5mm)lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.07 ounce, 2.0 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Dimensions in inches and (millimeters)

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

| | SYMBOLS | 6A05 | 6A1 | 6A2 | 6A4 | 6A6 | 6A8 | 6A10 | UNITS |
|--|---------------------------|-------------|-----|-----|-----|-----|-----|------|--------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current 0.375”(9.5mm) lead length at $T_A=60^\circ\text{C}$ | $I_{(AV)}$ | 6.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method) | I_{FSM} | 300 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage @ 6.0A | V_F | 0.95 | | | | | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage per element | $T_A = 25^\circ\text{C}$ | 10 | | | | | | | μAmps |
| | $T_A = 100^\circ\text{C}$ | 1.0 | | | | | | | mAmps |
| Maximum Full Load Reverse Current, full cycle average 0.375”(9.5mm)lead length at $T_L=105^\circ\text{C}$ | $I_{R(AV)}$ | 1.0 | | | | | | | mAmps |
| Typical Junction Capacitance (Note 1) | C_J | 150 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 10 | | | | | | | $^\circ\text{C/W}$ |
| Operating Junction Temperature Range | T_J, T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

Notes:

1. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V Volts.
2. Thermal Resistance from junction to Ambient at .375”(9.5mm)lead length, P.C.board mounted with 1.1”× 1.1”(30× 30mm)copper heatsink.



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6A05 THRU 6A10

**VOLTAGE RANGE
CURRENT**

**50 to 1000 Volts
6.0 Ampere**

RATING AND CHARACTERISTIC CURVES 6A05 Thru 6A10

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

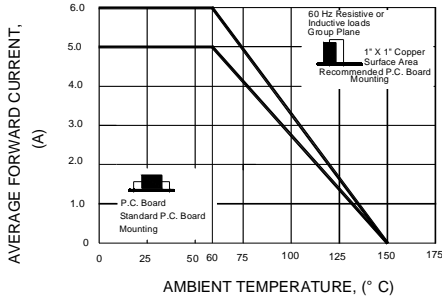


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

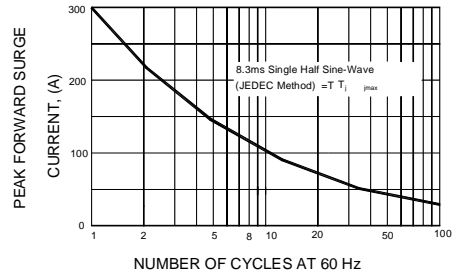


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

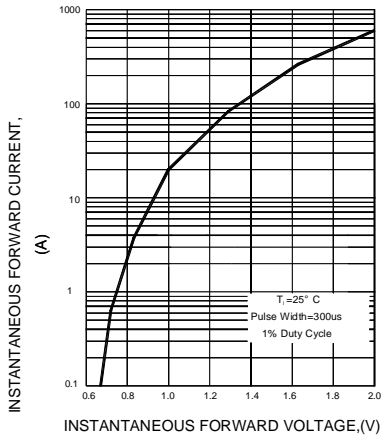


FIG.4-TYPICAL REVERSE CHARACTERISTICS

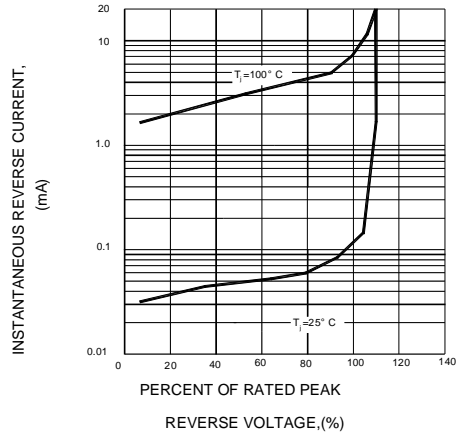


FIG.5-TYPICAL JUNCTION CAPACITANCE

