

General Purpose Plastic Rectifier

6A05 THRU 6A10

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 6.0 Ampere

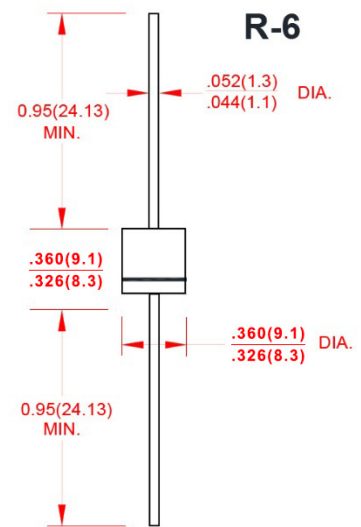
FEATURES

- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering guaranteed 260°C/10 seconds, 0.375" (9.5mm) lead length

at 5 lbs (2.3kg) tension

Mechanical Data

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| | SYMBOL | 6A05 | 6A1 | 6A2 | 6A4 | 6A6 | 6A8 | 6A10 | UNIT |
|---|-----------------|-------------|-----|-----|-----|-----|-----|------|---------------------------|
| Maximum Recurrent 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 (FIG.1) 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} | 150 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage at 6.0A | V_F | 1.1 | | | | | | | Volts |
| Maximum DC Reverse Current $T_A=25^\circ\text{C}$ at rated DC Blocking voltage $T_A=100^\circ\text{C}$ | I_R | 10 100 | | | | | | | μA |
| Typical Junction Capacitance (NOTE 1) | C_J | 150 | | | | | | | pF |
| Typical Thermal Resistance (NOTE 2) | $R_{\theta JA}$ | 10 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

Note: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.

2. Thermal Resistance from Junction to Ambient at .375" (9.5mm) lead length, P.C. board mounted.

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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

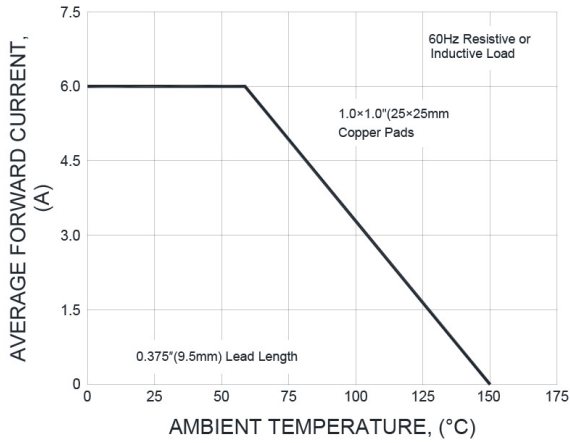


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

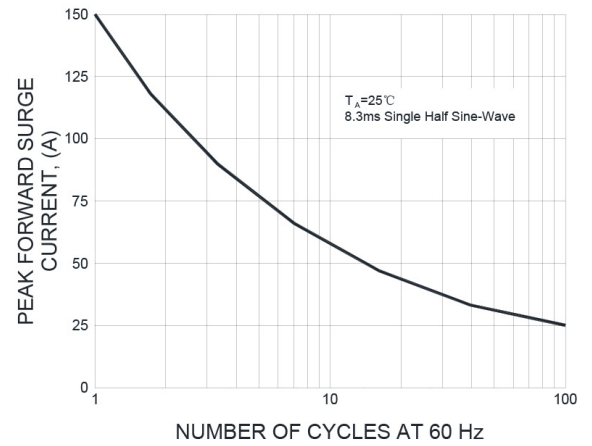


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

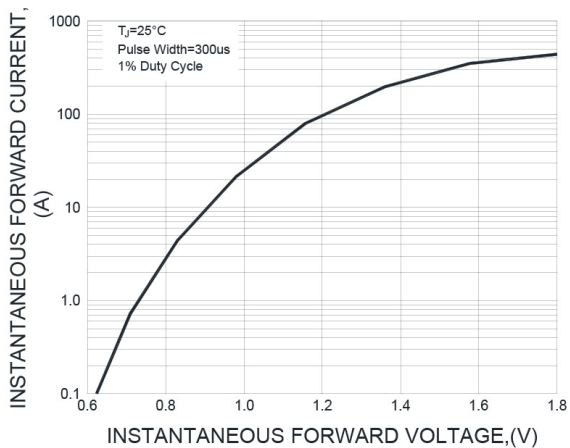


FIG.4-TYPICAL REVERSE CHARACTERISTICS

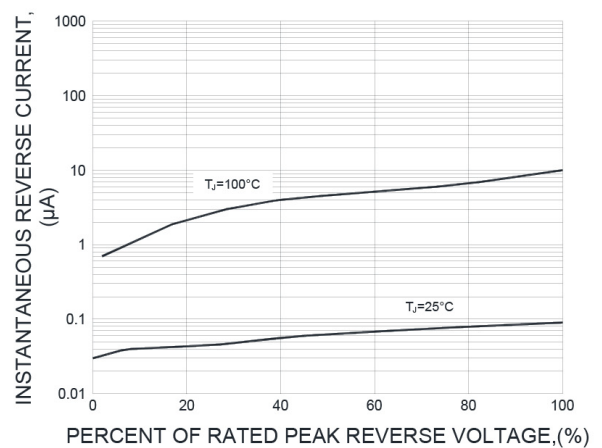
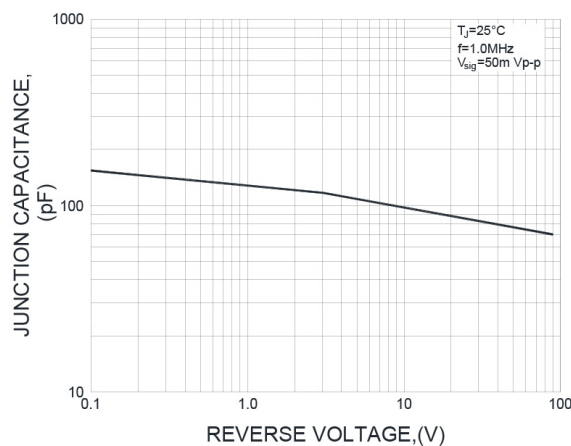


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.