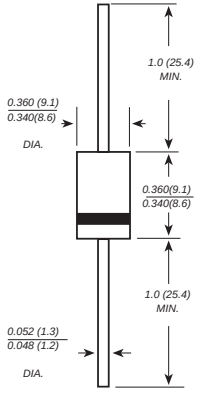
# 10A05 THRU 10A10

## GENERAL PURPOSE SILICON RECTIFIER

*Reverse Voltage - 50 to 1000 Volts  Forward Current -10.0 Amperes*

**R-6**




*Dimensions in inches and (millimeters)*

## 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

## MECHANICAL DATA

**Case**: R-6 molded plastic body
**Terminals**: Plated axial leads, solderable per MIL-STD-750, Method 2026
**Polarity**: Color band denotes cathode end
**Mounting Position**: Any
**Weight**:0.072 ounce, 2.05 grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

| MDD Catalog Number | *SYMBOLS* | 10A05 | 10A1 | 10A2 | 10A4 | 10A6 | 10A8 | 10A10 | 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℃ | $I_{(AV)}$ | 10.0 | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 600 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 10.0A | $V_F$ | 1.0 | | | | | | | Volts |
| Maximum DC reverse current $T_A$=25℃<br>at rated DC blocking voltage $T_A$=100℃ | $I_R$ | 10.0<br>100 | | | | | | | 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 | $T_J$,$T_{STG}$ | -50 to +150 | | | | | | | °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

# RATINGS AND CHARACTERISTIC CURVES 10A05 THRU 10A10

FIG. 1 -- TYPICAL FORWARD CHARACTERISTIC

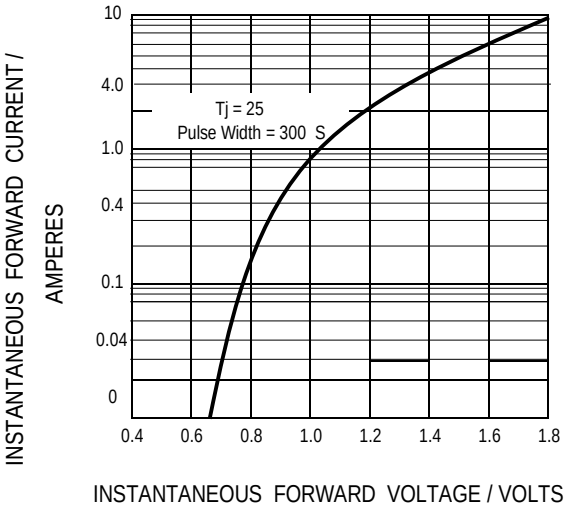



FIG. 2 -- TYPICAL JUNCTION CAPACITANCE

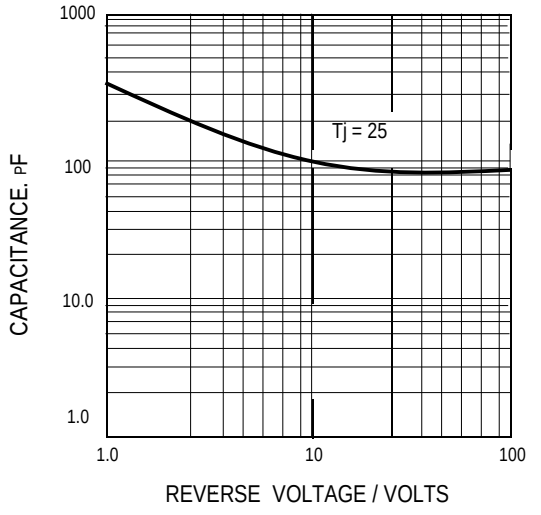



FIG. 3 -- FORWARD CURRENT DERATING CURVE

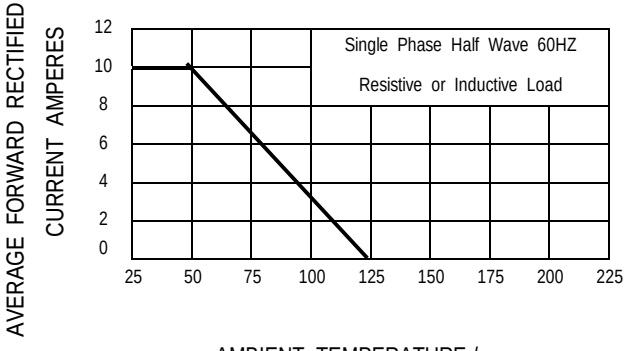



FIG. 4 -- PEAK FORWARD SURGE CURRENT