



8A05 THRU 8A10

Reverse Voltage - 50 to 1000 Volts Forward Current - 8.0 Ampere

GENERAL PURPOSE SILICON RECTIFIER

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°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

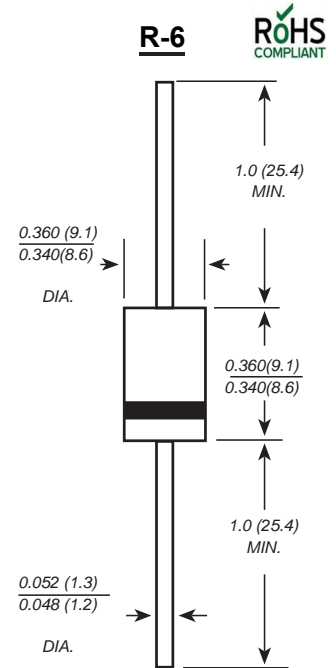
Case : JEDEC R-6 Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.072 ounce, 2.05 grams



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter | SYMBOLS | MDD | MDD | MDD | MDD | MDD | MDD | MDD | UNITS |
|---|-----------------|-------------|-----|-----|-----|-----|-----|------|--------------------|
| | | 8A05 | 8A1 | 8A2 | 8A4 | 8A6 | 8A8 | 8A10 | |
| Marking Code | | | | | | | | | |
| Maximum repetitive 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 0.375" (9.5mm) lead length at $T_A=60^\circ\text{C}$ | $I_{(AV)}$ | 8.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 600 | | | | | | | A |
| Maximum instantaneous forward voltage at 8.0A | V_F | 1.0 | | | | | | | V |
| Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$ | I_R | 10.0 100 | | | | | | | μA |
| Typical junction capacitance (NOTE 1) | C_J | 150 | | | | | | | pF |
| Typical thermal resistance (NOTE 2) | $R_{\theta JA}$ | 10.0 | | | | | | | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range | T_J, T_{STG} | -50 to +150 | | | | | | | $^\circ\text{C}$ |

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

FIG. 1 -- TYPICAL FORWARD CHARACTERISTIC

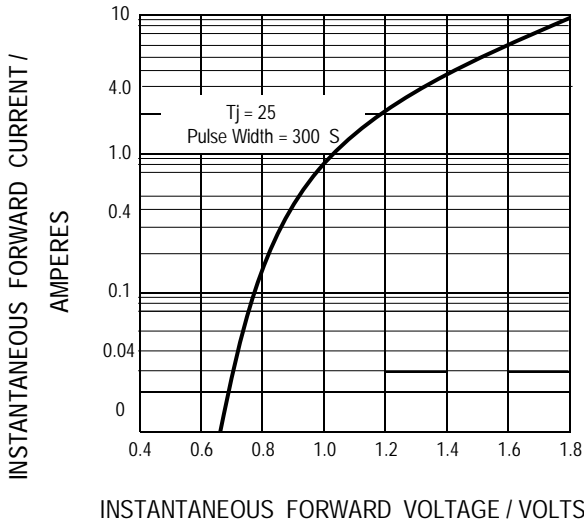


FIG. 2 -- TYPICAL JUNCTION CAPACITANCE

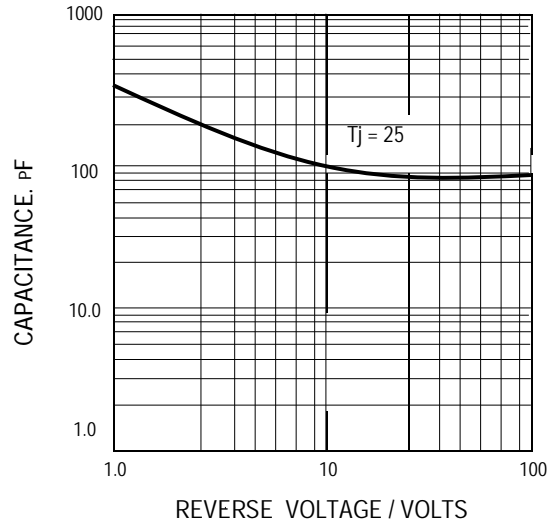


FIG. 3 -- FORWARD CURRENT DERATING CURVE

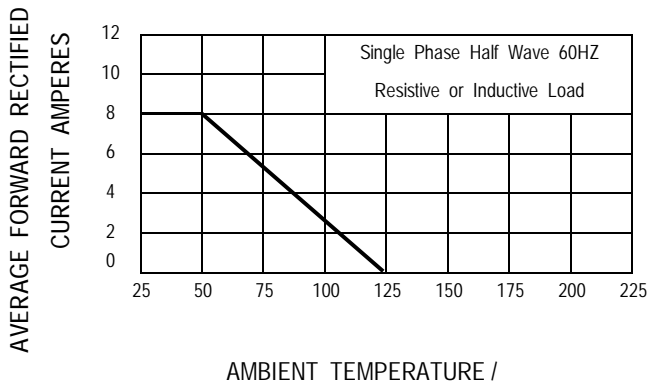
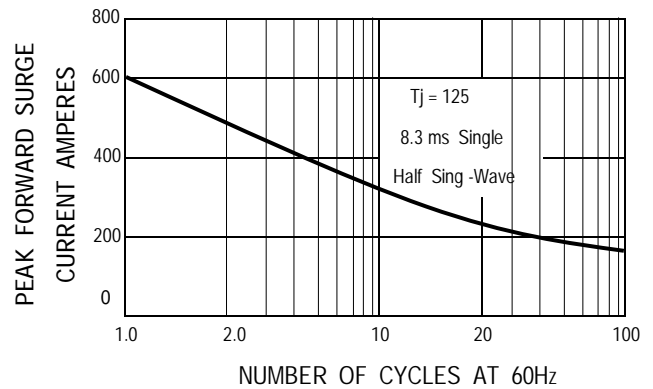


FIG. 4 -- PEAK FORWARD SURGE CURRENT



The curve above is for reference only.