

10A05 THRU 10A10

GENERAL PURPOSE PLASTIC RECTIFIERS

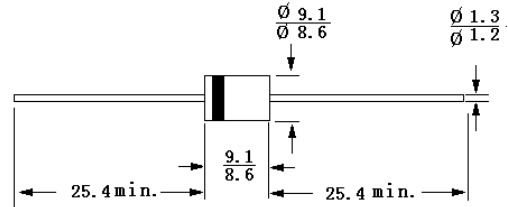
Reverse Voltage – 50 to 1000 Volts

Forward Current – 10.0 Amperes

R-6

Features

- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carries UL recognition 94V-0



Dimensions in mm

Mechanical Data

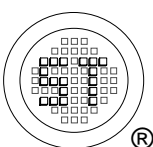
- **Case:** JEDEC R-6 molded plastic
- **Polarity:** Color band denotes cathode
- **Mounting position:** Any

Absolute Maximum Ratings and Characteristics

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 | 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 @ $T_A=50^\circ\text{C}$ | $I_{F(AV)}$ | 10 | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 600 | | | | | | | Amps |
| Maximum forward voltage at 10A DC | V_F | 1 | | | | | | | Volts |
| Maximum DC reverse current @ $T_J = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_J = 100^\circ\text{C}$ | 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 temperature range | T_J | -55 to +125 | | | | | | | $^\circ\text{C}$ |
| Storage temperature range | T_{Stg} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

- Notes:
1. Measured at 1 MHz and applied reverse voltage of 4V D.C.
 2. Thermal Resistance Junction to Ambient.



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