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DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

**10A05
THRU
10A10**

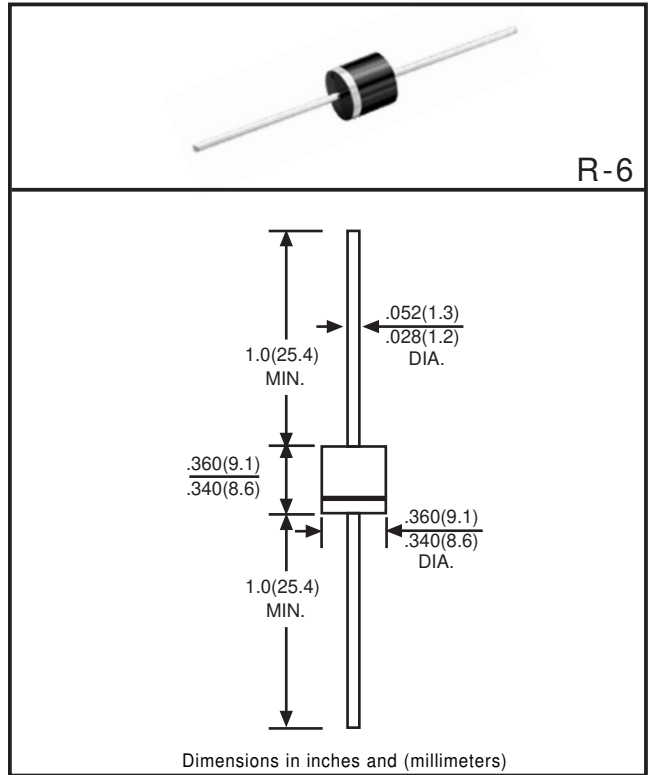
TECHNICAL SPECIFICATIONS OF GENERAL PURPOSE SILICON RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts **CURRENT - 10 Amperes**

FEATURES

- * Low cost
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High surge current capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rated flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 2.08 gram approx.



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, derate current by 20%.

| | SYMBOL | 10A05 | 10A1 | 10A2 | 10A4 | 10A6 | 10A8 | 10A10 | UNITS |
|--|-----------------------------------|-------------|------|------|------|------|------|-------|-------|
| 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 375"(9.5mm) lead length at T _A = 60°C | I _O | 10 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 400 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage at 10 A DC | V _F | 1.1 | | | | | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @ T _A =25°C | 10 | | | | | | | μAmps |
| | @ T _A =100°C | 500 | | | | | | | |
| Maximum Full Load Reverse Current Average, Full Cycle .375"(9.5mm) lead length at T _L = 75°C | I _R | 50 | | | | | | | |
| Typical Junction Capacitance (Note 1) | C _J | 150 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | R _{θJA} | 10 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to +150 | | | | | | | °C |

Note 1: Measured at 1 MHz and applied reverse voltage of 4.0 volts.
Note 2: Typical thermal resistance from junction to ambient.

RATING AND CHARACTERISTIC CURVES (10A05 THRU 10A10)

FIG. 1
TYPICAL FORWARD CURRENT
DERATING CURVE

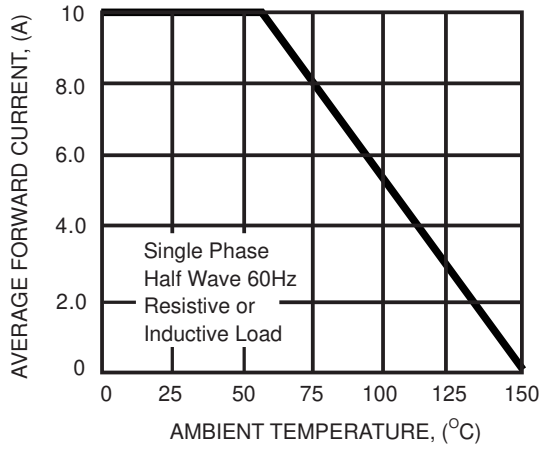


FIG. 2
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

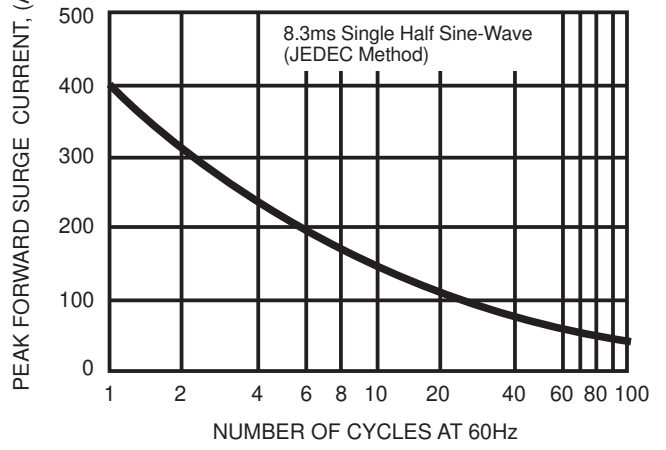


FIG. 3
TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

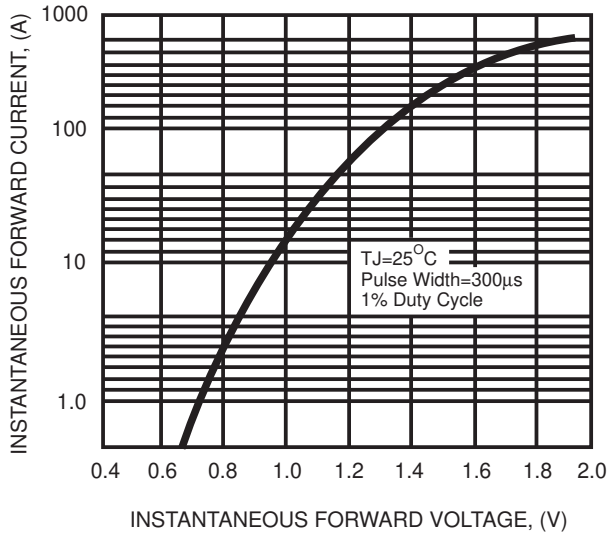


FIG. 4
TYPICAL REVERSE CHARACTERISTICS

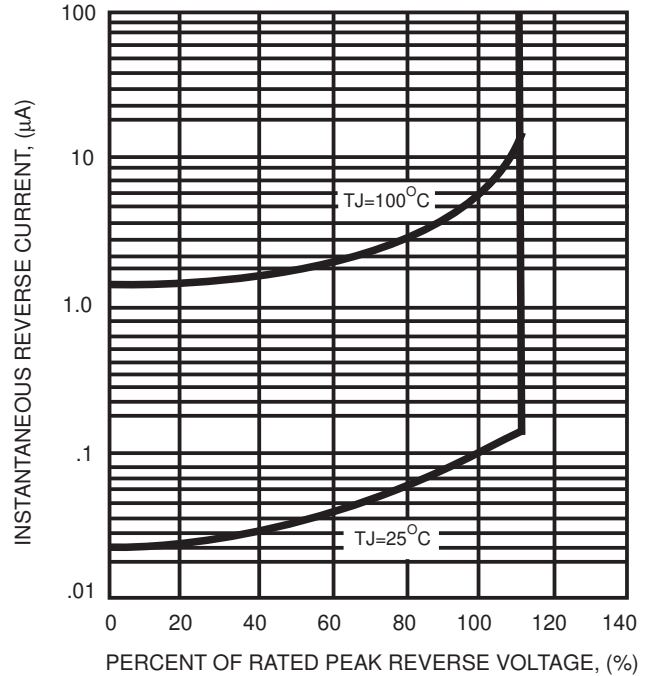
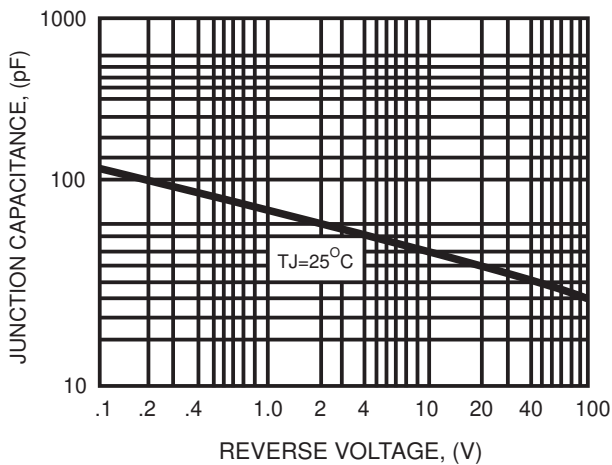


FIG. 5
TYPICAL JUNCTION CAPACITANCE



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