

SILICON RECTIFIER

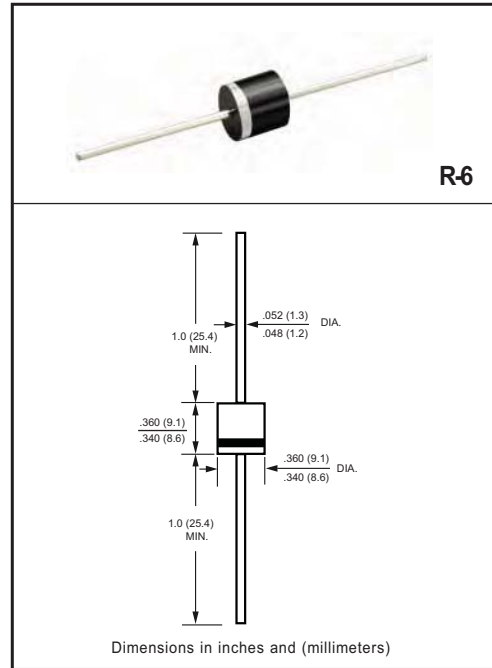
VOLTAGE RANGE 50 to 1000 Volts CURRENT 10 Amperes

FEATURES

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

MECHANICAL DATA

- * Case: Molded plastic black body
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.08 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

| RATINGS | 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 at TA = 50°C | I _O | | | | | 10 | | | | Amps |
| Peak Forward Surge Current I _{FM} (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | | | | | 400 | | | | Amps |
| Typical Current Squared Time | i ² T | | | | | 664 | | | | A ² S |
| Typical Thermal Resistance (Note 3) | R _{θJA} | | | | | 20 | | | | °C/W |
| Typical Thermal Resistance (Note 4) | R _{θJL} | | | | | 4 | | | | °C/W |
| Typical Thermal Resistance (Note 5) | R _{θJC} | | | | | 6 | | | | °C/W |
| Typical Junction Capacitance (Note 1) | C _J | | | | | 135 | | | | pF |
| Operating and Storage Temperature Range | T _J , T _{STG} | | | | | -55 to + 150 | | | °C | |

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | 10A05 | 10A1 | 10A2 | 10A4 | 10A6 | 10A8 | 10A10 | UNITS | |
|--|-------------------------|-------|------|------|------|------|------|-------|-------|-------|
| Maximum Forward Voltage at 10A DC | V _F | | | | | 1.1 | | | | Volts |
| Maximum DC Average Reverse Current at Rated DC Blocking Voltage | @T _A = 25°C | | | | | 5 | | | | uAmps |
| | @T _A = 100°C | | | | | 100 | | | | |
| Maximum Full Load Reverse Current Average Full Cycle .375" (9.5mm) Lead Length at T _L =75°C | | | | | | 50 | | | | |

- NOTES : 1. Measured at 1.0 MHz and applied average voltage of 4.0VDC
 2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
 3. Thermal Resistance: At 9.5mm lead lengths, PCB mounted.
 4. Thermal Resistance Junction to lead
 5. Thermal Resistance Junction to dice

RATING AND CHARACTERISTICS CURVES (10A05 THRU 10A10)

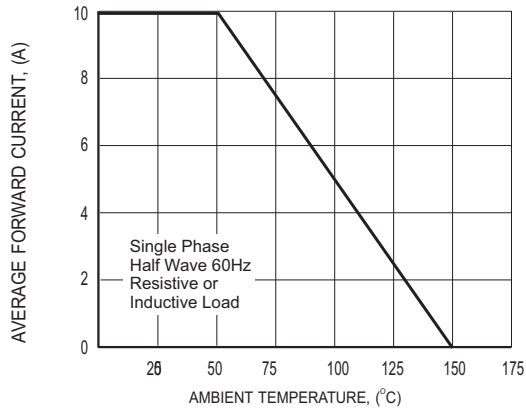


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

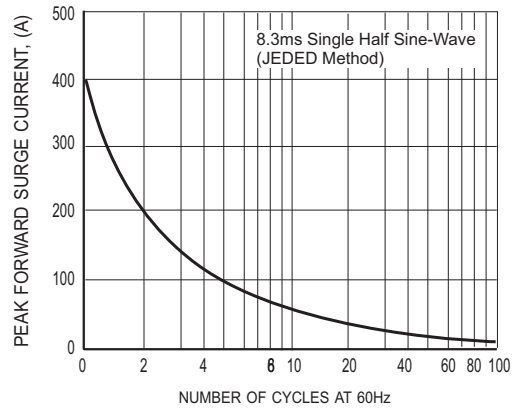


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

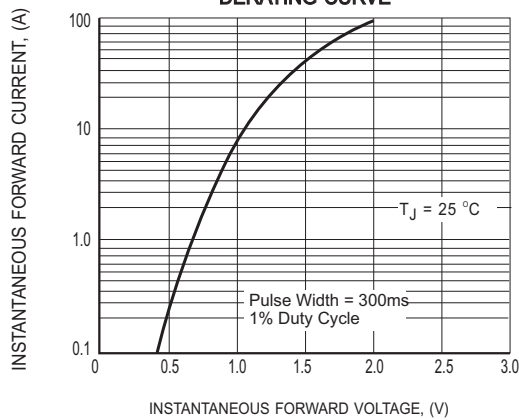


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

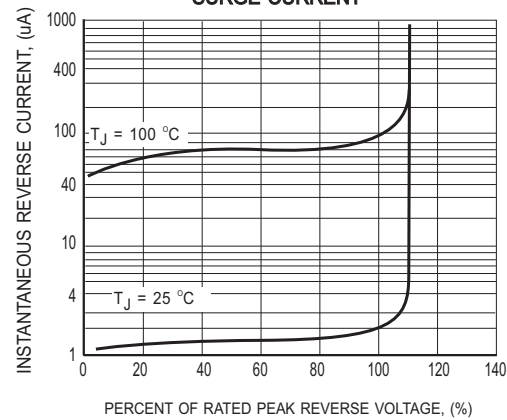


FIG.4 TYPICAL REVERSE CHARACTERISTICS

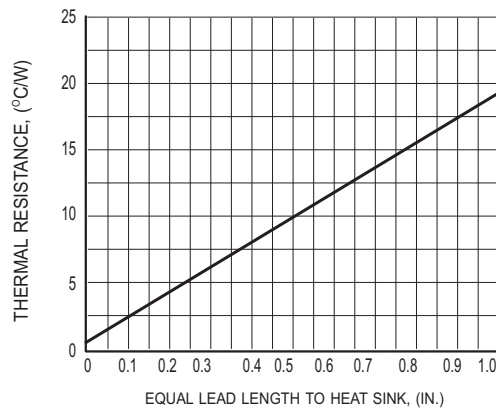


FIG.5 TYPICAL THERMAL RESISTANCE vs. LEAD LENGTH

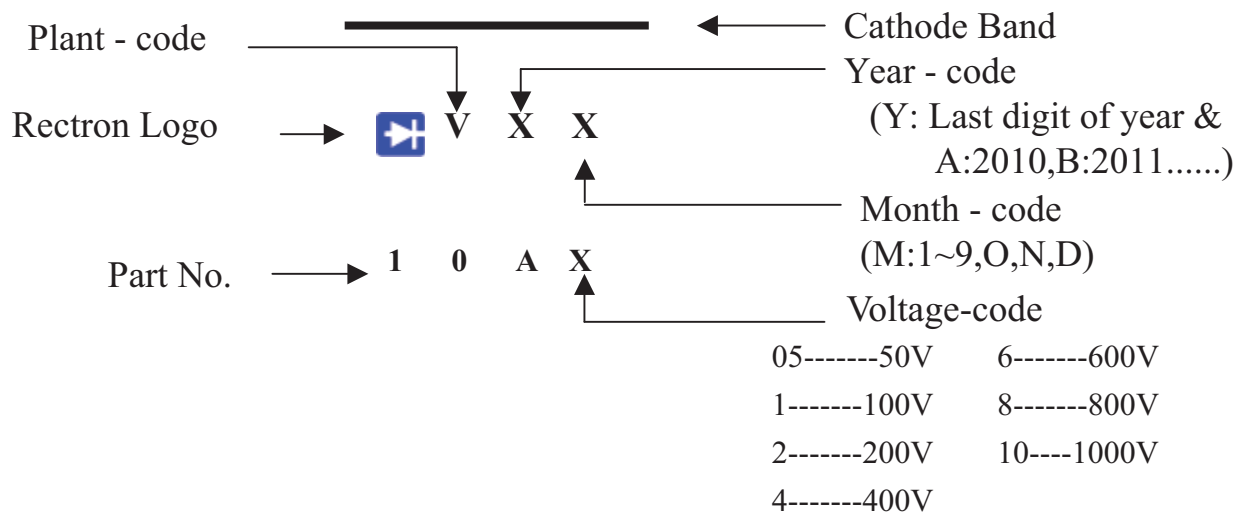


Attachment information about 10AX

1. Internal Circuit



2. Marking on the body



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|------------|---------------------|------------------|---------------|------------------|
| R-6/R-7 | -B | 200 | 300*73*40 | 347*320*271 | 4,800 | 12.93/14.57 |

REEL PACK

| PACKAGE | PACKING CODE | EA PER REEL | EA PER INNER BOX | COMPONENT SPACE (mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|-------------|------------------|----------------------|-----------------|---------------|------------------|---------------|------------------|
| R-6/R-7 | -T | 800 | 800 | 9.5 | 52 | 330 | 355*350*335 | 3,200 | 9.72/9.91 |

AMMO PACK

| PACKAGE | PACKING CODE | REEL (EA) | COMPONENT SPACE(mm) | TAPE SPACE (mm) | BOX SIZE (mm) | CARTON SIZE(mm) | CARTON (EA) | GROSS WEIGHT (Kg) |
|---------|--------------|-------------|---------------------|-----------------|---------------|-----------------|---------------|-------------------|
| R-6/R-7 | -F | 300 | 9.5 | 52 | 255*73*100 | 400*268*225 | 3,000 | 8.5/8.7 |

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- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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