



CHENMKO ENTERPRISE CO.,LTD

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 70 - 100 Volts CURRENT 5 Amperes

**S05A70PT
THRU
S05A100PT**

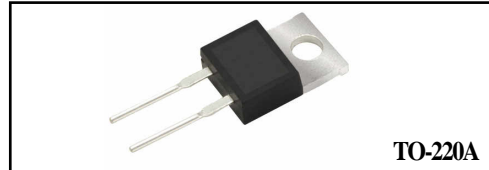
Lead free devices

FEATURES

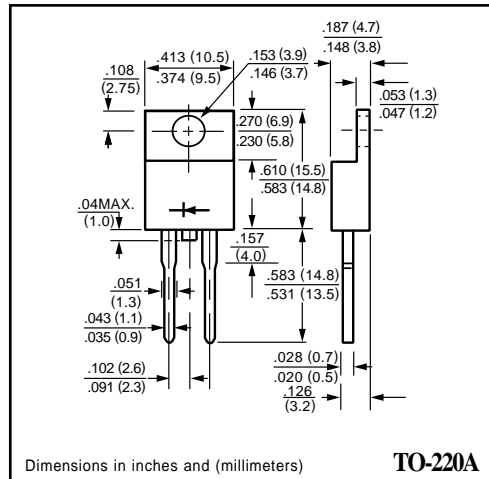
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Metal Silicon junction, majority carrier conduction
- * Low power loss,high efficiency
- * High current capability, low forward voltage drop
- * Guardring for overvoltage protection
- * For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- * High temperature soldering in accordance with CECC 802 / Reflow guaranteed

MECHANICAL DATA

Case: JEDEC TO-220A molded plastic
Terminals: Lead solderable per MIL-STD-750, Method 2026
Polarity: As marked
Weight: 1.81 grams (Approximately)



TO-220A



TO-220A

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 (At TA = 25°C unless otherwise noted)

| RATINGS | SYMBOL | S05A70PT | S05A80PT | S05A90PT | S05A100PT | UNITS |
|---|----------|-------------|----------|----------|-----------|--------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 70 | 80 | 90 | 100 | Volts |
| Maximum RMS Voltage | VRMS | 49 | 56 | 63 | 70 | Volts |
| Maximum DC Blocking Voltage | VDC | 70 | 80 | 90 | 100 | Volts |
| Maximum Average Forward Rectified Current | Io | 5.0 | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | 125 | | | | Amps |
| Typical thermal resistance per leg (NOTE 1) | R θJC | 5.0 | | | | °C / W |
| Operating and Storage Temperature Range | TJ, TSTG | -60 to +150 | | | | °C |

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

| CHARACTERISTICS | SYMBOL | S05A70PT | S05A80PT | S05A90PT | S05A100PT | UNITS |
|---|------------|----------|----------|----------|-----------|-------|
| Maximum Instantaneous Forward Voltage at 5.0 A DC | VF | 0.75 | | 0.85 | | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 2) | Tc = 25°C | 5.0 | | | | mAmps |
| | Tc = 125°C | 50 | | | | mAmps |

- NOTES : 1. Thermal resistance from junction to case per leg
 2. Pulse test : 300 us pulse width, 1% duty cycle
 3. Suffix " P " = Case Positive, Suffix " R " = Case Negative.

RATING CHARACTERISTIC CURVES (S05A70PT THRU S05A100PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

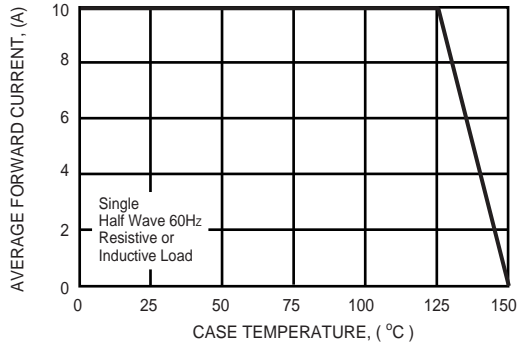


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

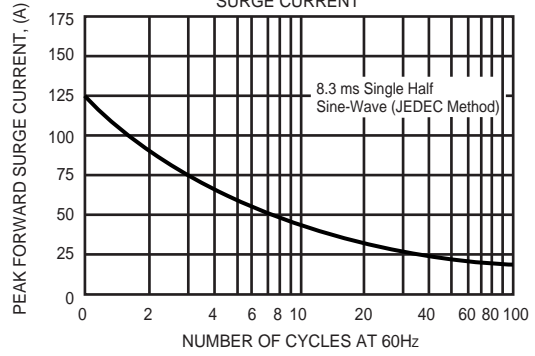


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

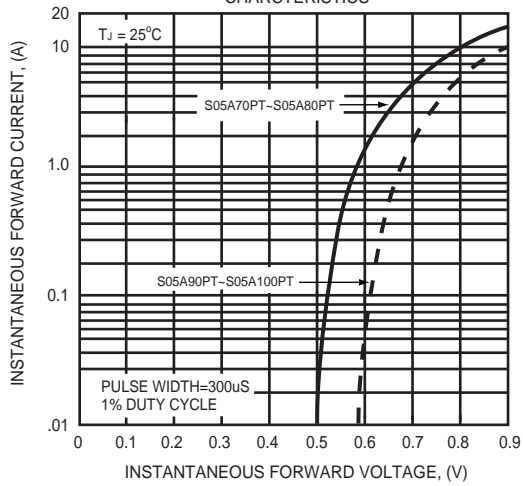


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

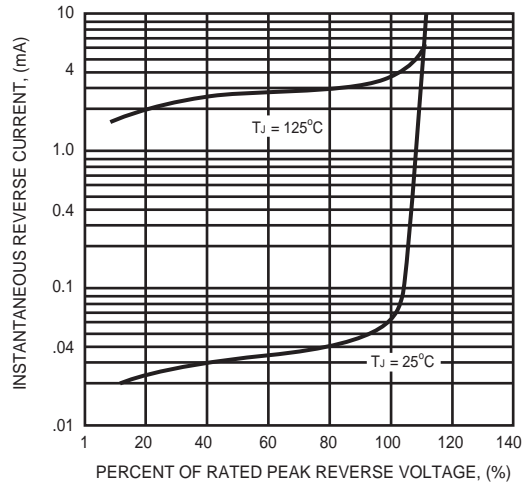


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

