



# Frontier Electronics Corp.

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## 60A SCHOTTKY BARRIER RECTIFIERS

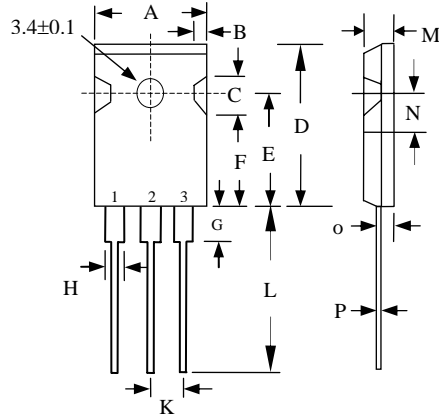
### SR60-03 THRU SR60-06

#### FEATURES

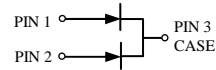
- LOW SWITCHING NOISE
- LOW FORWARD VOLTAGE DROP
- LOW THERMAL RESISTANCE
- HIGH CURRENT CAPABILITY
- HIGH SWITCHING CAPABILITY
- HIGH SURGE CAPABILITY
- HIGH RELIABILITY

#### MECHANICAL DATA

- CASE: MOLDED PLASTIC, TO-3P DIMENSIONS IN INCHES AND (MILLIMETERS)
- EPOXY: UL94V-0R RATE FLAME RETARDANT
- LEAD: MIL-STD-202E METHOD 208C GUARANTEED
- MOUNTING POSITION: ANY
- WEIGHT: 6.4 GRAMS



|   | MILLIMETERS |      |
|---|-------------|------|
|   | MIN         | MAX  |
| A | -           | 16.2 |
| B | 1.7         | 2.7  |
| C | 5.0         | 6.0  |
| D | -           | 22.0 |
| E | 14.8        | 15.2 |
| F | 11.7        | 12.7 |
| G | -           | 4.5  |
| H | -           | 2.5  |
| I | -           | 3.5  |
| J | 1.1         | 1.4  |
| K | 5.25        | 5.65 |
| L | 19.0        | -    |
| M | 4.7         | 5.3  |
| N | 2.8         | 3.2  |
| O | 2.4         | 2.8  |
| P | 0.45        | 0.85 |



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%

| RATINGS  | SYMBOL    | SR60-03       | SR60-035 | SR60-04 | SR60-045      | SR60-05 | SR60-06 | UNITS |
|--|-----------|---------------|----------|---------|---------------|---------|---------|-------|
| MAXIMUM RECURRENT PEAK REVERSE VOLTAGE   | $V_{RRM}$ | 30            | 35       | 40      | 45            | 50      | 60      | V     |
| MAXIMUM RMS VOLTAGE  | $V_{RMS}$ | 21            | 24       | 28      | 31            | 35      | 42      | V     |
| MAXIMUM DC BLOCKING VOLTAGE  | $V_{DC}$  | 30            | 35       | 40      | 45            | 50      | 60      | V     |
| MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT (SEE FIG.1)                              | $I_O$     | 60.0          |          |         |               |         |         | A     |
| PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD | $I_{FSM}$ | 300           |          |         |               |         |         | A     |
| STORAGE TEMPERATURE RANGE  | $T_{STG}$ | - 55 TO + 150 |          |         |               |         |         | °C    |
| OPERATING TEMPERATURE RANGE  | $T_{OP}$  | - 55 TO + 125 |          |         | - 55 TO + 150 |         |         | °C    |

#### ELECTRICAL CHARACTERISTICS ( $A_T T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

| CHARACTERISTICS                   | SYMBOL | SR60-03 | SR60-035 | SR60-04 | SR60-045 | SR60-05 | SR60-06 | UNITS |
|-----------------------------------|--------|---------|----------|---------|----------|---------|---------|-------|
| MAXIMUM FORWARD VOLTAGE AT 30A DC | $V_F$  | 0.65    |          |         |          | 0.75    |         | V     |
| MAXIMUM REVERSE CURRENT AT 25°C   | $I_R$  | 10.0    |          |         |          |         |         | mA    |

# RATINGS AND CHARACTERISTIC CURVES SR60-03 THRU SR60-06

FIG. 1 - FORWARD DERATING CURVE

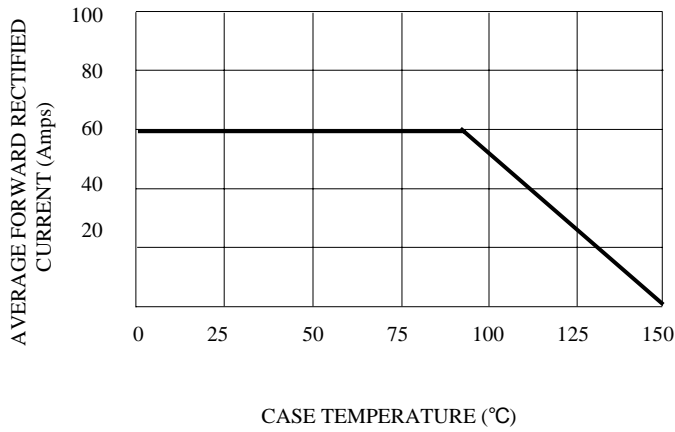


FIG. 2 - PEAK FORWARD SURGE CURRENT

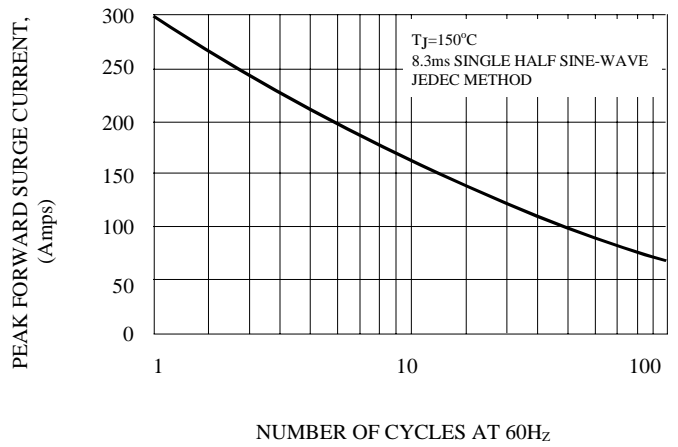


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

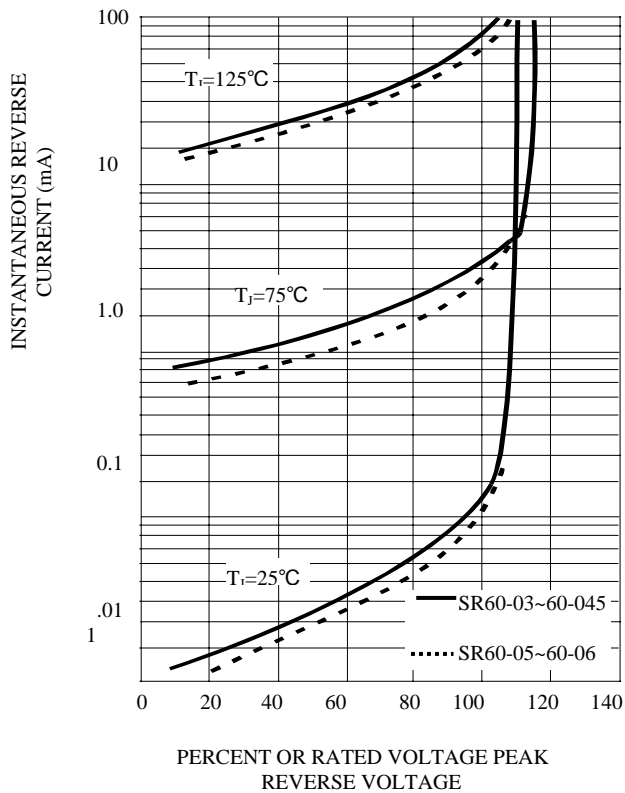


FIG. 4 - TYPICAL FORWARD CHARACTERISTIC

