



Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

TEL: (805) 522-9998 FAX: (805) 522-9989

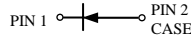
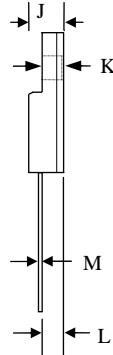
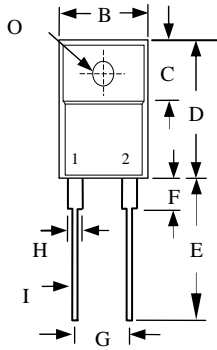
E-mail: frontiersales@frontierusa.com

Web: <http://www.frontierusa.com>

5A SCHOTTKY BARRIER RECTIFIERS

SRF5-02-LFR THRU SRF5-10-LFR

CASE : ITO-220AC(SRF5-XX), FULLY INSULATED PACKAGE



| | MILLIMETERS | |
|---|-------------|-------|
| | MIN | MAX |
| B | 9.72 | 10.27 |
| C | 6.30 | 6.90 |
| D | 14.50 | 15.50 |
| E | 13.00 | 13.80 |
| F | - | 4.1 |
| G | 4.95 | 5.20 |
| H | - | 1.52 |
| I | - | 0.9 |
| J | - | 4.8 |
| K | - | 3.1 |
| L | 2.5 | 2.9 |
| M | - | 0.8 |
| O | Ø 3.4 | |

FEATURES

- EXTREMELY LOW VF
- LOW STORED CHARGE, MAJORITY CARRIER CONDUCTION
- LOW POWER LOSS / HIGH EFFICIENCY
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- ROHS

MECHANICAL DATA

- CASE: TRANSFER MOLDED
- LEADS: SOLDERABLE PER MIL-STD-202,METHOD 208
- POLARITY: AS MARKED
- WEIGHT 1.81 GRAMS

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 | SRF5 | SRF5 | SRF5 | SRF5 | SRF5 | SRF5 | SRF5 | SRF5 | SRF5 | SRF5 | UNITS |
|--|-----------|---------------|---------|---------|----------|---------|---------|---------|---------|---------|---------|-------|
| | | -02-LFR | -03-LFR | -04-LFR | -045-LFR | -05-LFR | -06-LFR | -07-LFR | -08-LFR | -09-LFR | -10-LFR | |
| MAXIMUM RECURRENT PEAK REVERSE VOLTAGE | V_{RRM} | 20 | 30 | 40 | 45 | 50 | 60 | 70 | 80 | 90 | 100 | V |
| MAXIMUM RMS VOLTAGE | V_{RMS} | 14 | 21 | 28 | 31 | 35 | 42 | 49 | 56 | 63 | 70 | V |
| MAXIMUM DC BLOCKING VOLTAGE | V_{DC} | 20 | 30 | 40 | 45 | 50 | 60 | 70 | 80 | 90 | 100 | V |
| MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT | I_O | 5.0 | | | | | | | | | | A |
| PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD PER LEG | I_{FSM} | 150 | | | | | | | | | | A |
| STORAGE TEMPERATURE RANGE | T_{STG} | - 55 TO + 150 | | | | | | | | | | °C |
| OPERATING TEMPERATURE RANGE | T_{OP} | - 55 TO + 125 | | | | | | | | | | °C |

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

| CHARACTERISTICS | SYMBOL | SRF5 | SRF5 | SRF5 | SRF5 | SRF5 | SRF5 | SRF5 | SRF5 | SRF5 | UNITS | |
|---|--------|---------|---------|---------|----------|---------|---------|---------|---------|---------|-------|---------|
| | | -02-LFR | -03-LFR | -04-LFR | -045-LFR | -05-LFR | -06-LFR | -07-LFR | -08-LFR | -09-LFR | | -10-LFR |
| MAXIMUM FORWARD VOLTAGE AT I_O PER LEG | V_F | 0.55 | | | 0.70 | | | 0.80 | | | V | |
| MAXIMUM REVERSE CURRENT AT 25°C PER LEG (NOTE 1) | I_R | 5.0 | | | | | | | | | | mA |
| MAXIMUM REVERSE CURRENT AT 100°C PER LEG (NOTE 1) | I_R | 50.0 | | | | | | | | | | mA |

THERMAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

| PARAMETER | SYMBOL | SRF5 | UNITS |
|---|-----------------|------|-------|
| TYPICAL THERMAL RESISTANCE JUNCTION TO CASE PER LEG | $R_{\theta jc}$ | 6.0 | °C/W |

NOTES: 1. PULSE TEST: 300µS PULSE WIDTH, 1% DUTY CYCLE

RATINGS AND CHARACTERISTIC CURVES OF SRF5-02-LFR AND SRF5-10-LFR

FIG. 1 - FORWARD CURRENT DERATING CURVE

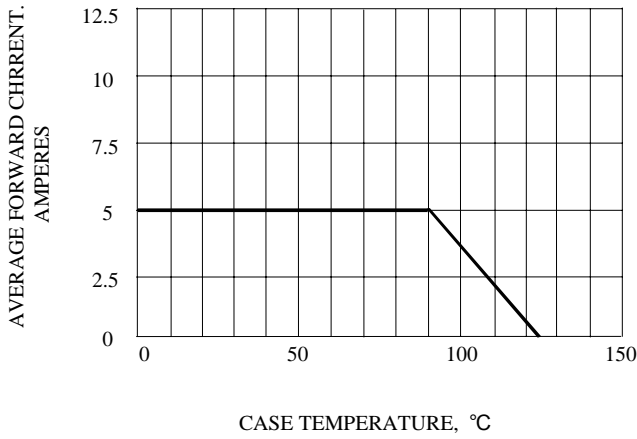


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

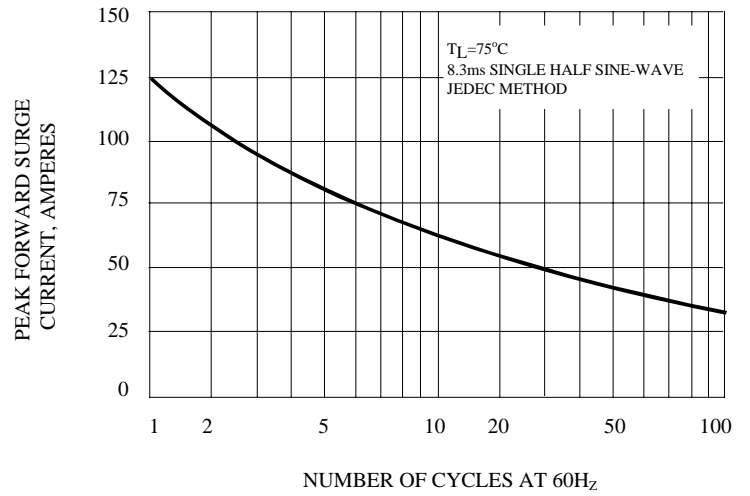


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

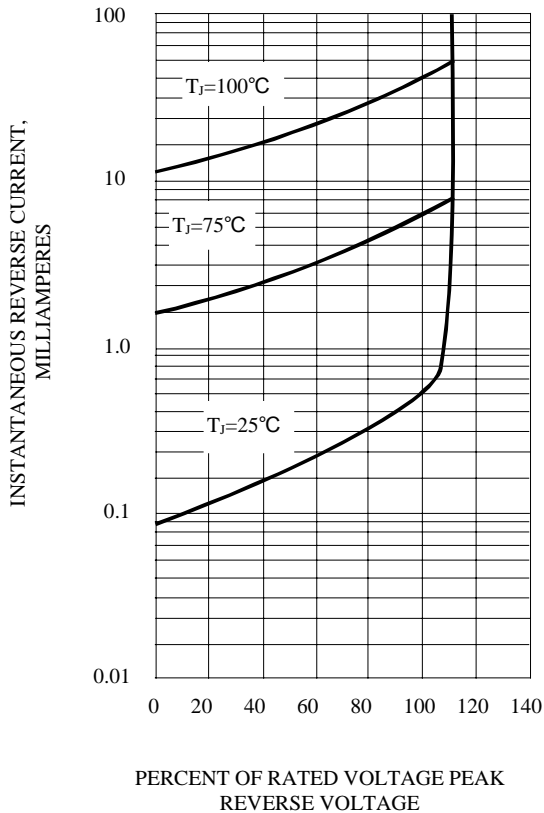


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

