



SCHOTTKY BARRIER RECTIFIER

SRF1620C THRU SRF16100C

VOLTAGE RANGE

20 to 100 Volts

CURRENT

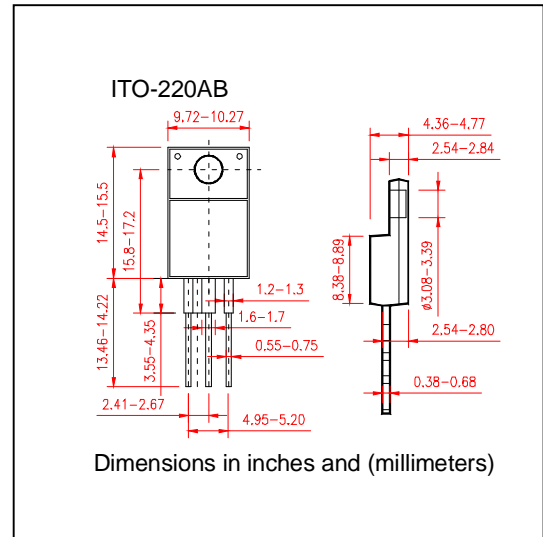
16.0 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency
- Low forward voltage high current capability
- High surge capacity
- For use in low voltage, high frequency inverters. Free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: ITO-220AB molded plastic
- Terminals: Lead solderable per MIL-STD-202 METHOD 208
- Polarity: AS marked
- Mounting position: Any
- Weight: 0.08ounce, 2.24 grams



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%

| | SYMBOLS | SRF 1620C | SRF 1630C | SRF 1635C | SRF 1640C | SRF 1645C | SRF 1650C | SRF 1660C | SRF 1680C | SRF1 6100C | SRF1 6150C | SRF1 6200C | UNIT |
|--|---------------------------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|---------------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 20 | 30 | 35 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 25 | 28 | 32 | 35 | 42 | 56 | 70 | 105 | 140 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 35 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum Average Forward Rectified Current At $T_C=90^\circ\text{C}$ | $I_{(AV)}$ | 16.0 | | | | | | | | | | | Amps |
| Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) | I_{FSM} | 150 | | | | | | | | | | | Amps |
| Maximum Forward Voltage at 8.0A per element | V_F | 0.65 | | | | 0.75 | | | 0.85 | | | | Volts |
| Maximum DC Reverse Current at rated DC Blocking Voltage per element | $T_C = 25^\circ\text{C}$ | 0.5 | | | | | | | | | | | mA |
| | $T_C = 100^\circ\text{C}$ | 100 | | | | | | | | | | | |
| Typical Junction Capacitance(Note2) | C_J | 400 | | | | | | | | | | | pF |
| Typical Thermal Resistance (Note 1) | $R_{\theta JC}$ | 3.0 | | | | | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating and Storage Temperature Range | $T_J T_{STG}$ | (-55 to +150) | | | | | | | | | | | $^\circ\text{C}$ |

Notes:

1. Thermal Resistance Junction to Case
2. Measured at $V_R=4\text{v}$ and $f=1\text{MHz}$



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RATING AND CHARACTERISTIC CURVES SRF1620C THRU SRF16100C

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

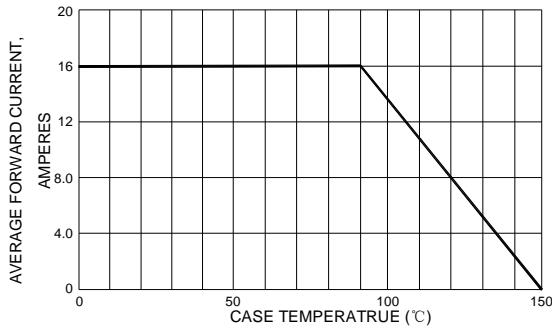


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

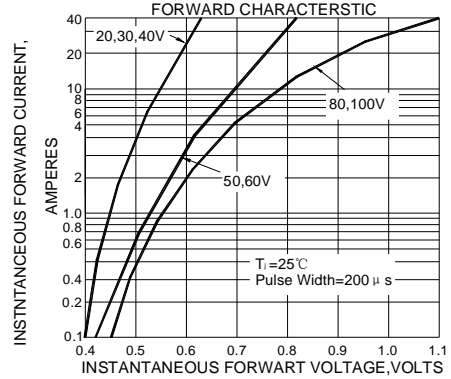


FIG.2-TYPICAL REVERSE CHARACTERISTICS

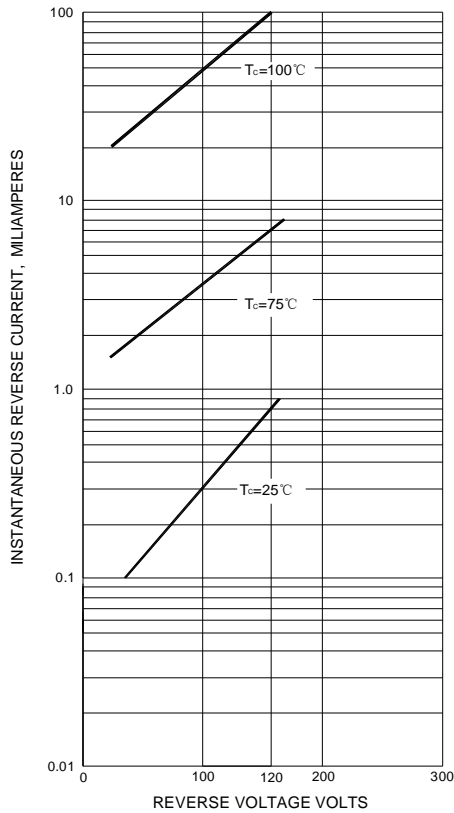


FIG.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

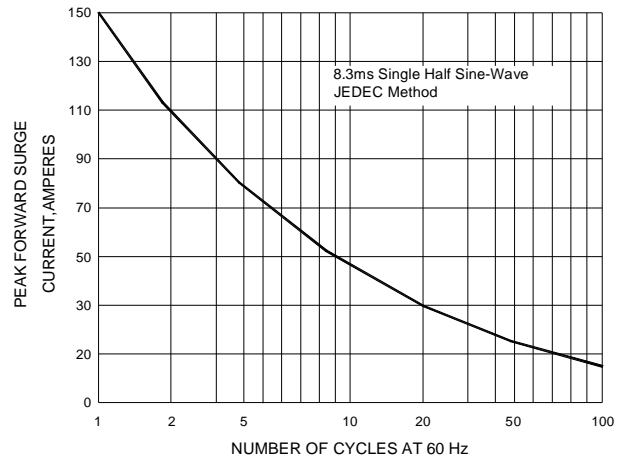


FIG.5-TYPICAL JUNCTION CAPACITANCE

