



SCHOTTKY BARRIER RECTIFIER

SRF1620C THRU SRF16100C

**VOLTAGE RANGE
CURRENT**

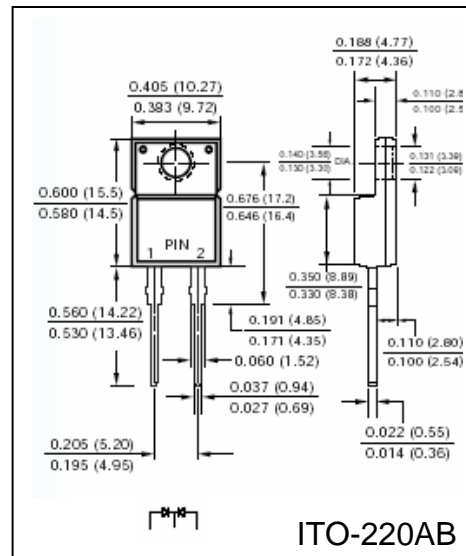
**20 to 100 Volts
16.0 Ampere**

FEATURES

- Dual Diode Device
- Fast switching
- Low forward voltage
- Low power loss for high efficiency
- High Surge capability
- High temperature Soldering guaranteed:
250 °C/10 seconds, 0.25" (6.35mm) lead length
- Also available with common Anode, add an "A" suffix,
i.e. SRF1620A, and as a doubler, add an "D" suffix,
i.e. SRF1620D
- Also available in a non isolate package, SR1620C
- Also available in single diode version, SRF1620

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-202E
Method 208C
- Polarity: as marked
- Mounting Position: Any, 5.0 in-lbs Torque Max
- Weight: 0.064 ounce, 1.81 gram



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 | SRF 16100C | UNIT |
|--|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|-------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 20 | 30 | 35 | 40 | 45 | 50 | 60 | 80 | 100 | Volts |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 25 | 38 | 32 | 35 | 42 | 56 | 70 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 35 | 40 | 45 | 50 | 60 | 80 | 100 | Volts |
| Maximum Average Forward Rectified Current, (Note 1) $T_L = 90^\circ\text{C}$ (SRF1620C-1645C), $T_L = 115^\circ\text{C}$ (SRF1650C-1680C) | $I_{(AV)}$ | 16.0 | | | | | | | | | Amps |
| Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method) | I_{FSM} | 150 | | | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage per leg @ 8.0A (Note 1) | V_F | 0.65 | | | 0.75 | | | 0.85 | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage per element (Note 1) | I_R | 5.0 | | | | | | | | | mA |
| Typical Thermal Resistance , per leg | $R_{\theta JC}$ | 3.0 | | | | | | | | | °C/W |
| Operating Junction Temperature Range | T_J | (-55 to +150) | | | | | | | | | °C |
| Storage Temperature Range | T_{STG} | (-55 to +150) | | | | | | | | | °C |

Notes:

1. Pulse test: 300µS pulse width, 1% duty cycle



RATINGS AND CHARACTERISTIC CURVES SRF1620C THRU SRF16100C

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

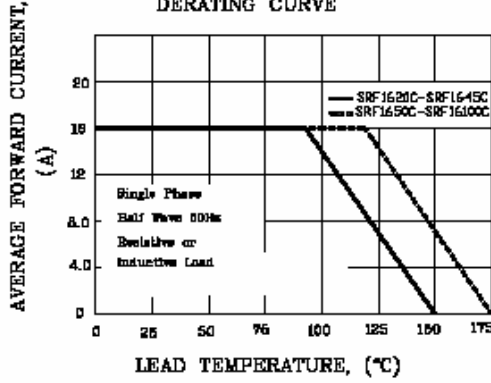


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

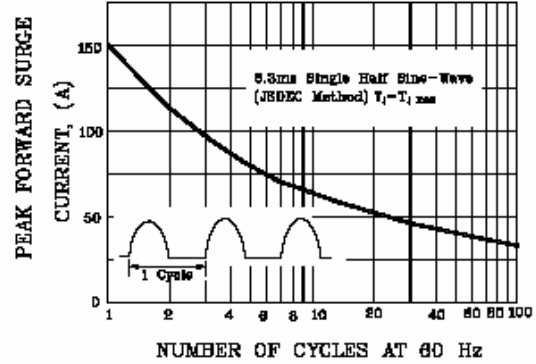


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

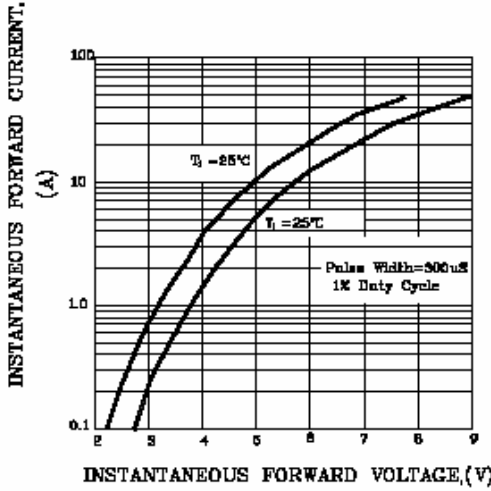


FIG.4-TYPICAL REVERSE CHARACTERISTICS

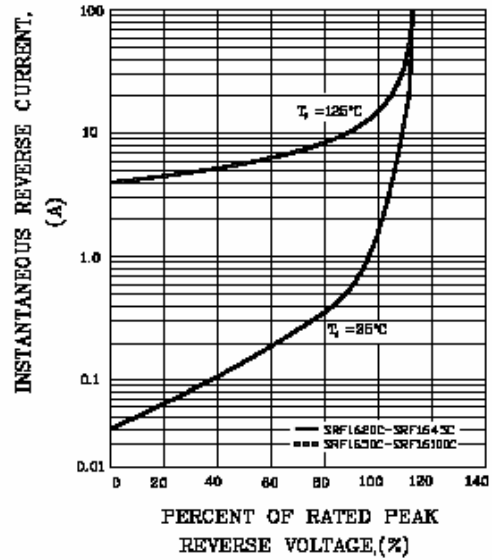


FIG.5-TYPICAL JUNCTION CAPACITANCE

