

## **SCHOTTKY BARIER 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 retardantLead: 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

### 0.188 (4.77) 0.405 (10.27) 0.383 (9.72) 0.600 (15.5) 0.580 (14.5) 0.350 (8.89) 0.560 (14.22) 0.191 (4.85) 0.530 (13.46) 0.171 (4.35) 0.060 (1.52) 0.100 (2.54) 0.037 (0.94) 0.027 (0.69) 0.022 (0.55) 0.205 (5.20) 0.014 (0.36) 0.195 (4.95) ITO-220AB

#### 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) $T_L = 90^{\circ}C$ (SRF1620C-1645C), $T_L = 115^{\circ}C$ (SRF1650C-1680C)	I <sub>(AV)</sub>	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)	$V_{\rm F}$	0.65 0.75 0.85						).85	Volts		
Maximum DC Reverse Current at Rated $T_A = 25$ °C	I <sub>R</sub> 5.0										mA
DC Blocking Voltage per element (Note 1) $T_A = 100$ °C											
Typical Thermal Resistance , per leg	$R_{\theta JC}$	3.0									OC/W
Operating Junction Temperature Range	$T_{J}$	(-55 to +150)									°C
Storage Temperature Range	$T_{STG}$	(-55 to +150)									<sup>o</sup> C

#### **Notes:**

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



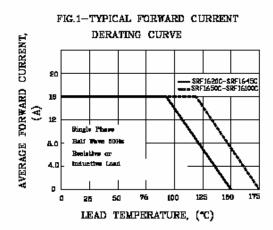


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

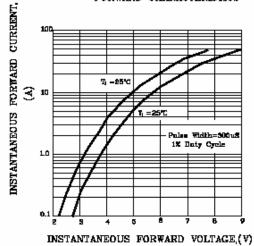


FIG.5-TYPICAL JUNCTION CAPACITANCE

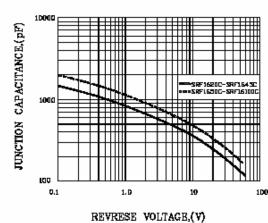


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

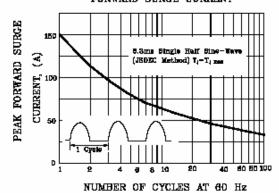
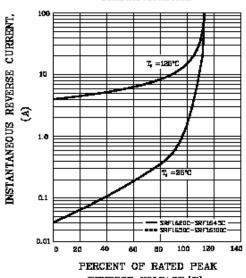


FIG.4-TYPICAL REVERSE CHARACTERISTICS



REVERSE VOLTAGE,(%)