



HOTTKY BARRIER RECTIFIER

SRF2020C THRU SRF20100C

VOLTAGE RANGE
CURRENT

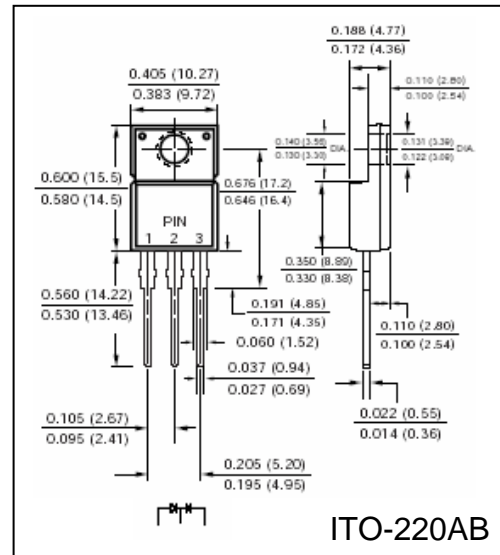
20 to 100 Volts
16.0 Ampere

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 reverse polarity, add and "R" suffix,
i.e. SRF2020R
- Also available in a non isolate package, SR2020C
- Also available in a dual diode version, SRF2020

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: 0.08 ounce, 2.24 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 2020C	SRF 2030C	SRF 2035C	SRF 2040C	SRF 2045C	SRF 2050C	SRF 2060C	SRF 2080C	SRD 20100C	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) $T_L = 135^{\circ}C$	$I_{(AV)}$	20									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 @ 10.0A (Note 1)	V_F	0.65					0.75				Volts
Maximum DC Reverse Current at Rated $T_A = 25^{\circ}C$	I_R	5.0									mA
DC Blocking Voltage per element (Note 1) $T_A = 100^{\circ}C$		50									
Typical Thermal Resistance , per leg	$R_{\theta JC}$	3.0									$^{\circ}C/W$
Operating Junction Temperature Range	T_J	(-55 to +150)									$^{\circ}C$
Storage Temperature Range	T_{STG}	(-55 to +150)									$^{\circ}C$

Notes:

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



RATI AND CHARACTERISTIC CURVES SRF2020C THRU SRF20100C

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

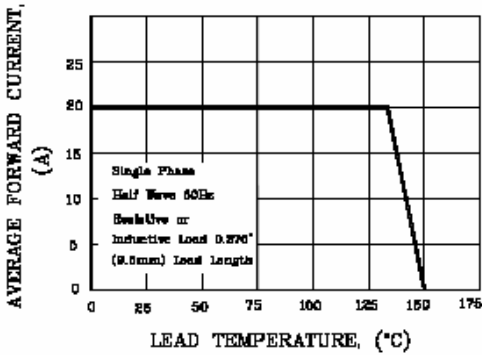


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

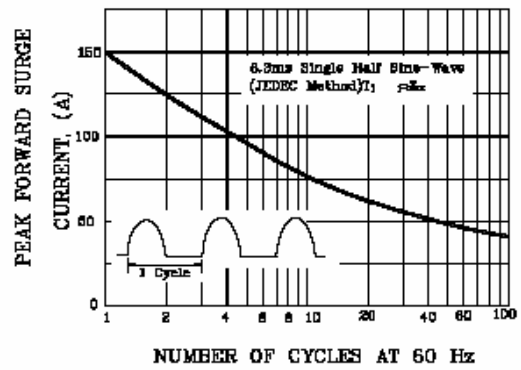


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

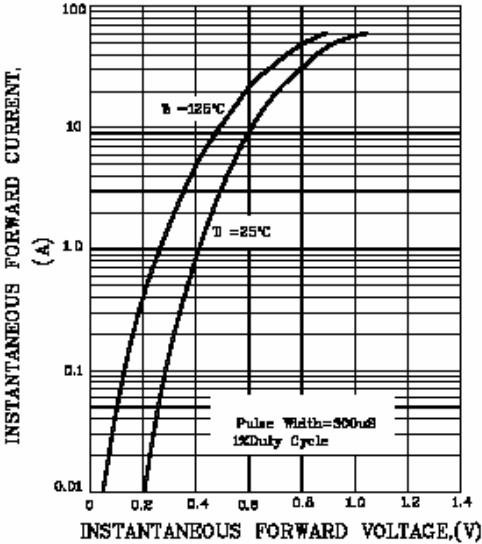


FIG.4-TYPICAL REVERSE CHARACTERISTICS

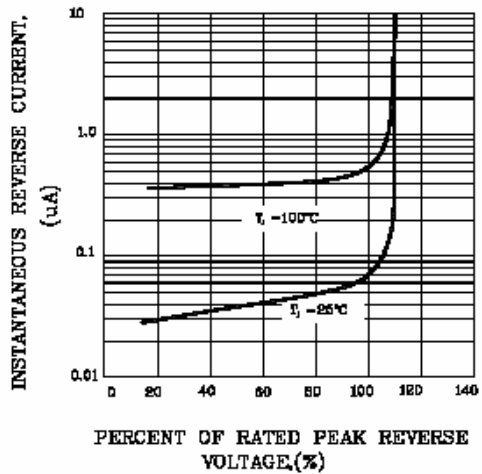


FIG.5-TYPICAL JUNCTION CAPACITANCE

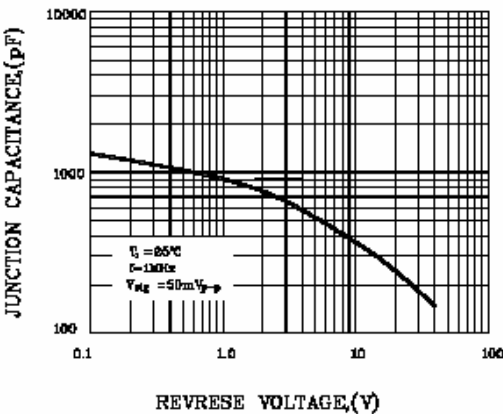


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

