



SCHOTTKY BARRIER RECTIFIER

SR1620 THRU SR1680

VOLTAGE RANGE
CURRENT

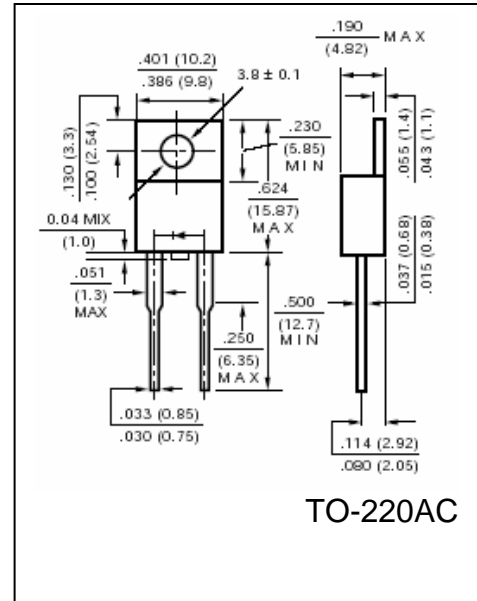
20 to 80 Volts
16.0 Ampere

FEATURES

- Fast switching
- Low forward voltage
- Low power loss for high efficiency
- High Surge capability
- High temperature Soldering guaranteed:
250 °C/10 seconds, 0.16" (4.06mm) lead length
- Also available with reversed polarity, add an "R" suffix,
i.e. SR1620R
- Also available in an isolated version, SRF1620
- Also available in a dual diode version, SR1620C

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	SR 1620	SR 1630	SR 1635	SR 1640	SR 1645	SR 1650	SR 1660	SR 1680	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	35	40	45	50	60	80	Volts
Maximum RMS Voltage	V_{RMS}	14	21	25	38	32	35	42	56	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	35	40	45	50	60	80	Volts
Maximum Average Forward Rectified Current, (Note 1) $T_C = 100^\circ\text{C}$ (SR1620-1645), $T_C = 125^\circ\text{C}$ (SR1650-1680)	$I_{(AV)}$	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 @ 16.0A (Note 1)	V_F	0.65			0.75			0.85		Volts
Maximum DC Reverse Current at Rated $T_A = 25^\circ\text{C}$	I_R	10								mA
DC Blocking Voltage per element (Note 1) $T_A = 100^\circ\text{C}$		100								
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_J	800				600				pF
Typical Thermal Resistance	$R_{\theta JC}$	1.5								$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	(-65 to +125)				(-65 to +150)				$^\circ\text{C}$
Storage Temperature Range	T_{STG}	(-65 to +150)								$^\circ\text{C}$

Notes:

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



RATINGS AND CHARACTERISTIC CURVES SR1620 THRU SR1680

FIG.1-TYPICAL FORWARD CURRENT

DERATING CURVE

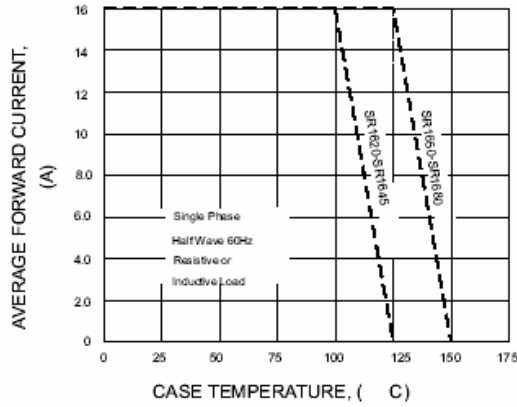


FIG.2-MAXIMUM NON-REPETITIVE PEAK

FORWARD SURGE CURRENT

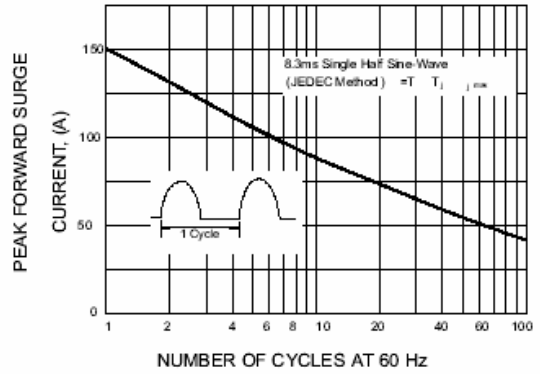


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

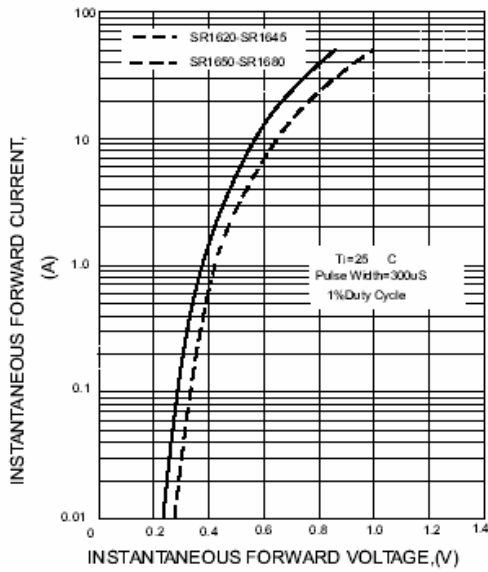


FIG.4-TYPICAL REVERSE CHARACTERISTICS

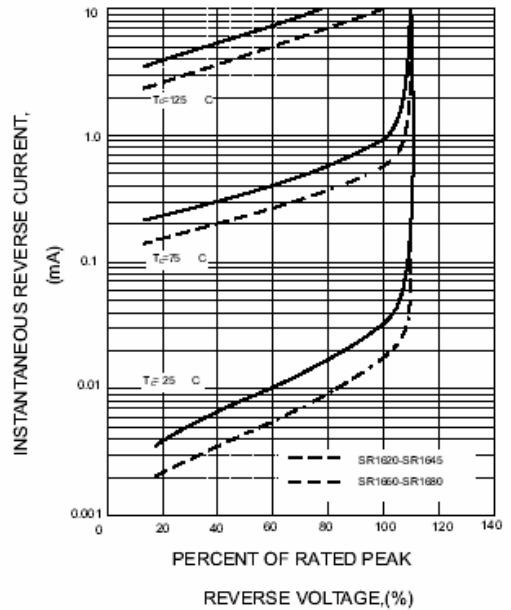


FIG.5-TYPICAL JUNCTION CAPACITANCE

