

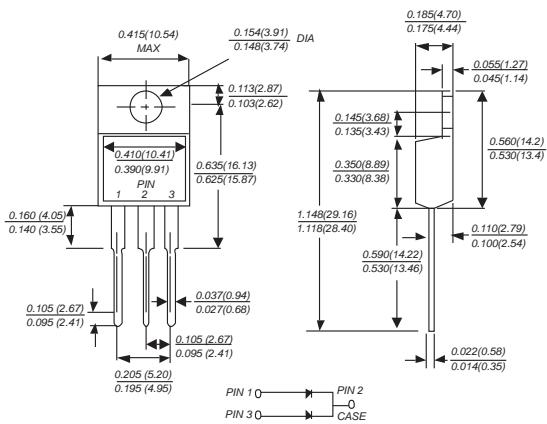


# SR1620C THRU SR16A0C

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts   Forward Current - 16.0 Amperes

### TO-220AB



### FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250°C, 0.25"(6.35mm) from case for 10 seconds

### MECHANICAL DATA

**Case:** TO-220AB molded plastic body

**Terminals:** Leads solderable per MIL-STD-750, Method 2026

**Polarity:** As marked

**Mounting Position:** Any

**Weight:** 0.080 ounce, 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 current derate by 20%.

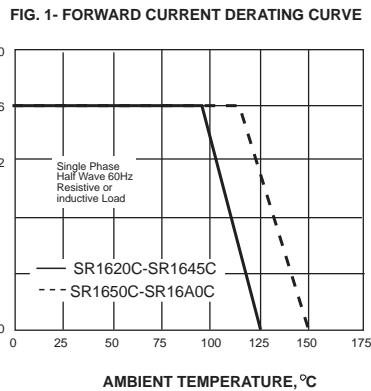
	SYMBOLS	SR 1620C	SR 1630C	SR 1640C	SR 1645C	SR 1650C	SR 1660C	SR 1670C	SR 1680C	SR 1690C	SR 16A0C	UNITS
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	45	50	60	70	80	90	100	VOLTS
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	32	35	42	49	56	63	70	VOLTS
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	45	50	60	70	80	90	100	VOLTS
Maximum average forward rectified current (see fig.1)	I <sub>(AV)</sub>	16.0									Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150.0									Amps	
Maximum instantaneous forward voltage at 8.0A	V <sub>F</sub>	0.65			0.75			0.85			Volts	
Maximum DC reverse current   TA=25°C at rated DC blocking voltage   TA=100°C	I <sub>R</sub>	1.0			50.0						mA	
Typical junction capacitance (NOTE 1)	C <sub>J</sub>	500			360						pF	
Typical thermal resistance (NOTE 2)	R <sub>qjc</sub>	2.0						°C/W				
Operating junction temperature range	T <sub>J</sub>	-65 to +125			-65 to +150			°C				
Storage temperature range	T <sub>STG</sub>	-65 to +150						°C				

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

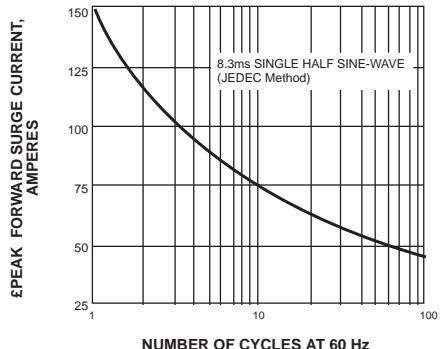
2. Thermal resistance from junction to case

# RATINGS AND CHARACTERISTIC CURVES SR1620C THRU SR16A0C

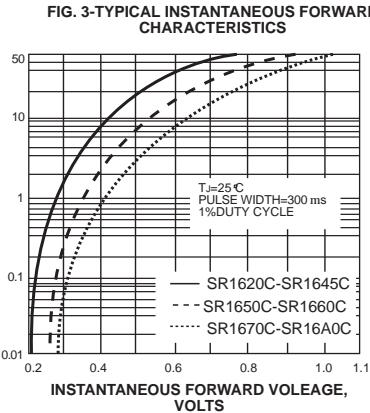
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES



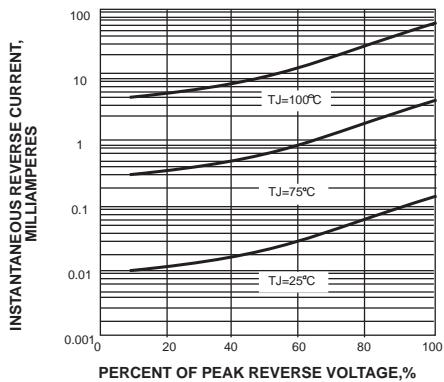
**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



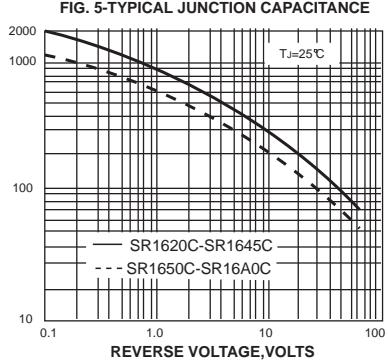
INSTANTANEOUS FORWARD  
CURRENT, AMPERES



**FIG. 4-TYPICAL REVERSE CHARACTERISTICS**



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE,  
 $\text{CW}$

