

# 16.0Amp Schottky Barrier Rectifiers

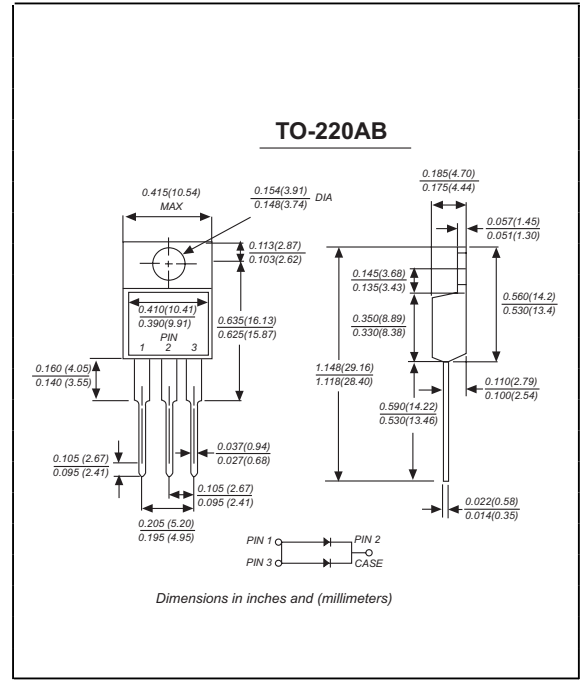
# SR1620C~SR16100C

## 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	$V_{RRM}$	20	30	40	45	50	60	70	80	90	100	VOLTS
Maximum RMS voltage	$V_{RMS}$	14	21	28	32	35	42	49	56	63	70	VOLTS
Maximum DC blocking voltage	$V_{DC}$	20	30	40	45	50	60	70	80	90	100	VOLTS
Maximum average forward rectified current (see fig.1)	$I_{(AV)}$	16.0										Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150.0										Amps
Maximum instantaneous forward voltage at 8.0A	$V_F$	0.55			0.75		0.85					Volts
Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=100^\circ C$	$I_R$	1.0					50.0					mA
Typical junction capacitance (NOTE 1)	$C_J$	500					360					pF
Typical thermal resistance (NOTE 2)	$R_{\theta JC}$	2.0										°C/W
Operating junction temperature range	$T_J$	-65 to +125					-65 to +150					°C
Storage temperature range	$T_{STG}$	-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 SR16100C

FIG. 1- FORWARD CURRENT DERATING CURVE

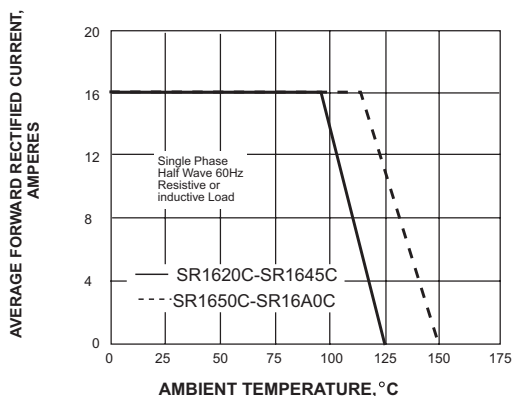


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

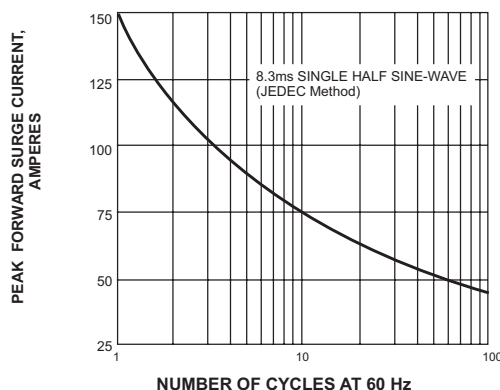


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

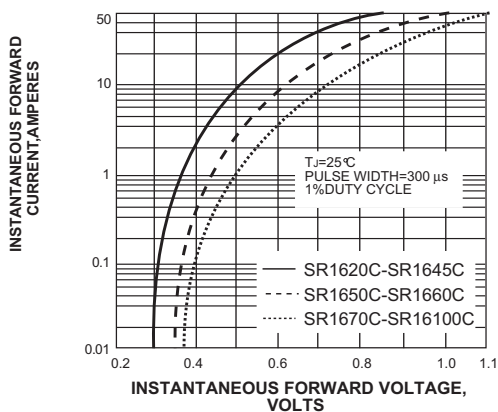


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

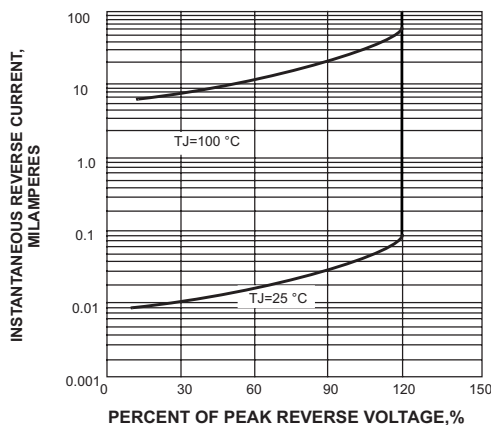


FIG. 5-TYPICAL JUNCTION CAPACITANCE

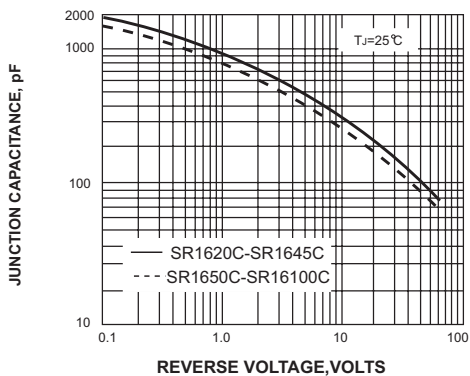


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

