



## SCHOTTKY BARRIER RECTIFIER

# SR1620C THRU SR1680C

VOLTAGE RANGE  
CURRENT

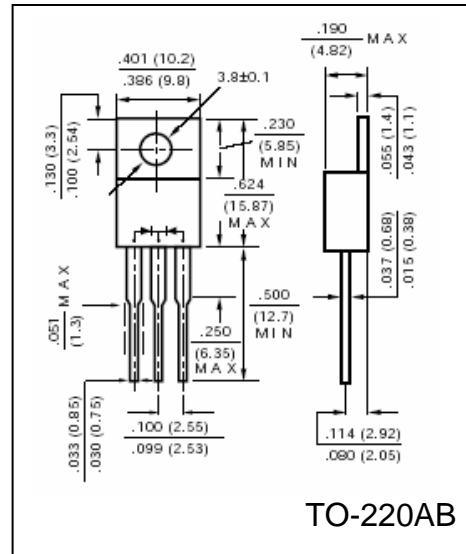
20 to 80 Volts  
16.0 Ampere

### 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. SR1620A, and as a doubler, add an "D" suffix,  
i.e. SR1620D
- Also available in isolate package, SRF1620C
- Also available in single diode version, SR1620

### 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) $T_L = 90^\circ\text{C}$ (SR1620C-1645C), $T_L = 115^\circ\text{C}$ (SR1650C-1680C)	$I_{(AV)}$	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 per leg @ 8.0A (Note 1)	$V_F$	0.65			0.75		0.80			Volts
Maximum DC Reverse Current at Rated $T_A = 25^\circ\text{C}$	$I_R$	5.0								mA
DC Blocking Voltage per element (Note 1) $T_A = 100^\circ\text{C}$		50								
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	$C_J$	580				480				pF
Typical Thermal Resistance, per leg	$R_{\theta JC}$	3.0								°C/W
Operating Junction Temperature Range	$T_J$	(-65 to +125)				(-65 to +150)				°C
Storage Temperature Range	$T_{STG}$	(-65 to +150)								°C

### Notes:

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



## RATINGS AND CHARACTERISTIC CURVES SR1620C THRU SR1680C

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

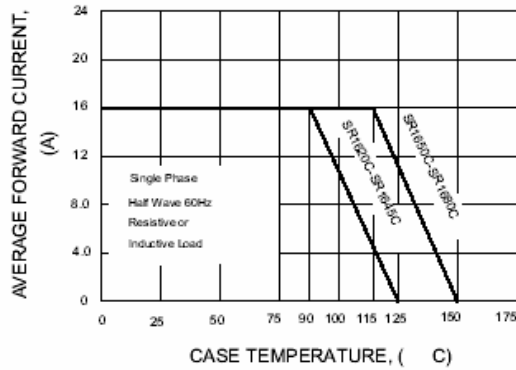


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

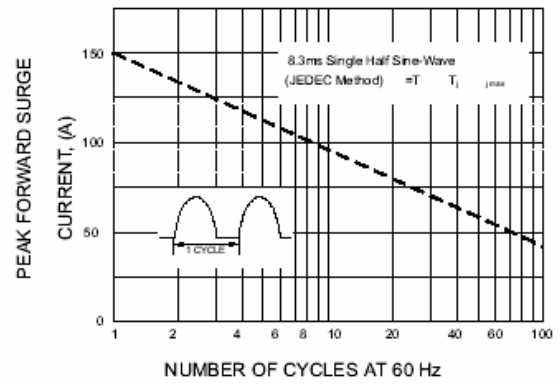


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

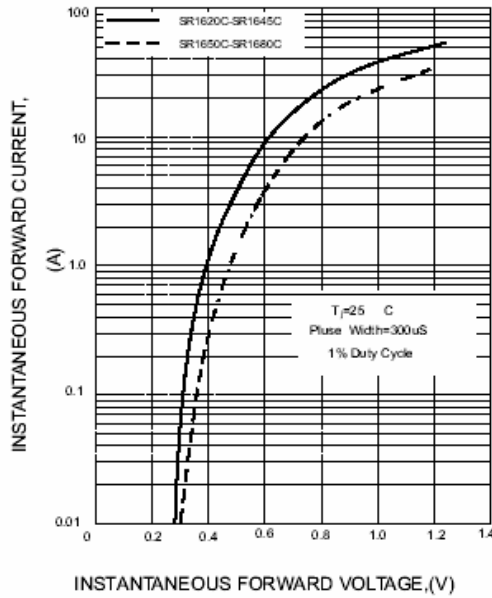


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER LEG

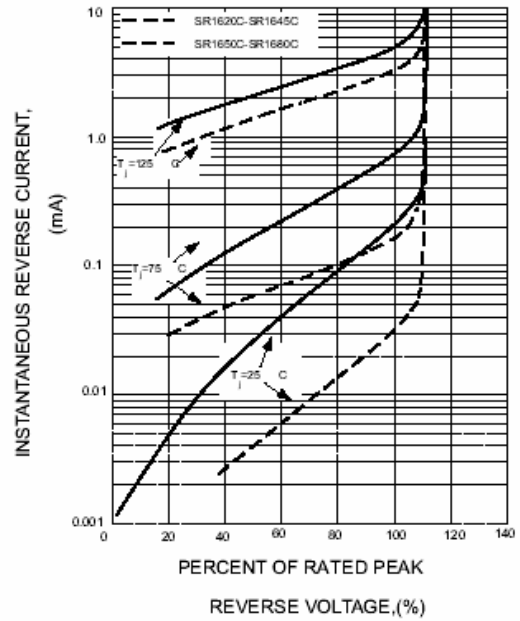


FIG.5-TYPICAL JUNCTION CAPACITANCE PER LEG

