



CHENYI ELECTRONICS

# SRF1620 THRU SRF16A0

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts

Forward Current - 16.0Amperes

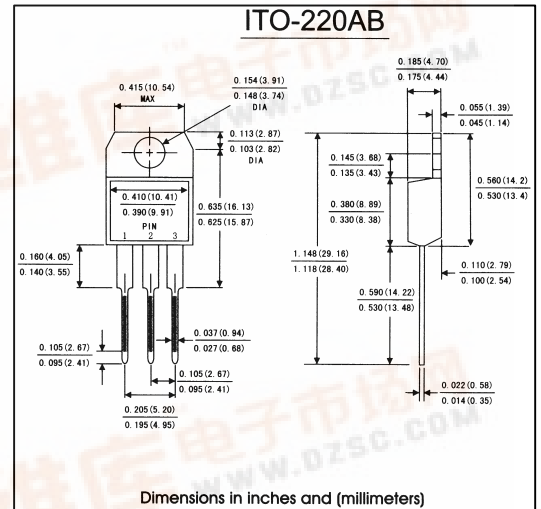
### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling , and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed: 250°C/10 seconds

0.25"(6.35mm)from case

### MECHANICAL DATA

- Case:** JEDEC DO-220AB molded plastic body
- Terminals:** lead solderable per MIL-STD-750,method 2026
- Polarity:** As marked. No suffix indicates Common Cathode, suffix "A" indicates Common Anode
- Mounting Position:** Any
- Weight:** 0.08 ounce, 2.24 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified,Single phase,half wave,resistive or inductive)

load. For capacitive load,derate by 20%)

	Symbols	SRF1620	SRF1630	SRF1640	SRF1650	SRF1660	SRF1680	SRF16A0	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	57	71	Volts
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	Volts
Macimum average forward rectified current(see Fig.1)	$I_{(AV)}$	16.0							Amps
Repetitive peak forward current(square wavr, 20KHz) at $T_c=105^\circ C$	$I_{FRM}$	32.0							Amps
Peak forward surge current 8.3ms singel half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150.0							Amps
Maximum instantaneous forward voltage at 10 A(Note 1)	$V_F$	0.65			0.75		0.80	0.85	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$I_R$	1.0							mA
		30			50				
Typeical thermal resistance(Note 2)	$R\theta_{JC}$	5.0							$^\circ C/W$
Operating junction temperature range	$T_J$	-65 to +125			-65 to +150				$^\circ C$
Storage temperature range	$T_{STG}$	-65 to +150							$^\circ C$

Notes: 1. Pulse test: 300  $\mu s$  pulse width,1% duty cycle

2. Thermal resistance from junction to case



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## RATINGS AND CHARACTERISTIC CURVES SRF1620 THRU SRF16A0

FIG.1-FORWARD CURRENT DERATING CURVE

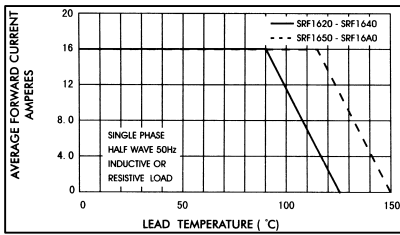


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

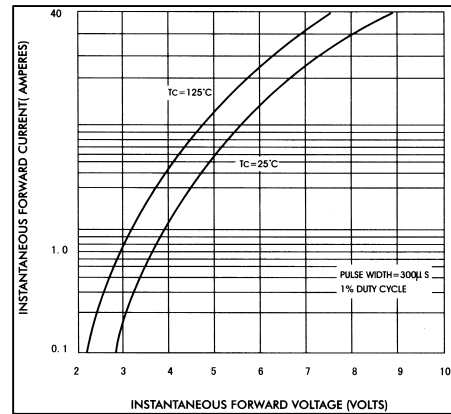


FIG.4-TYPICAL JUNCTION CAPACITANCE

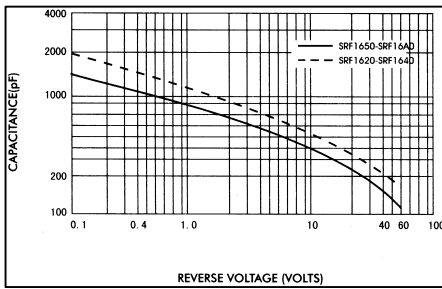


FIG.3-TYPICAL REVERSE CHARACTERISTICS

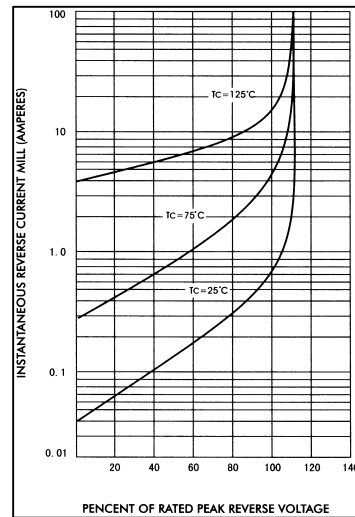


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

