

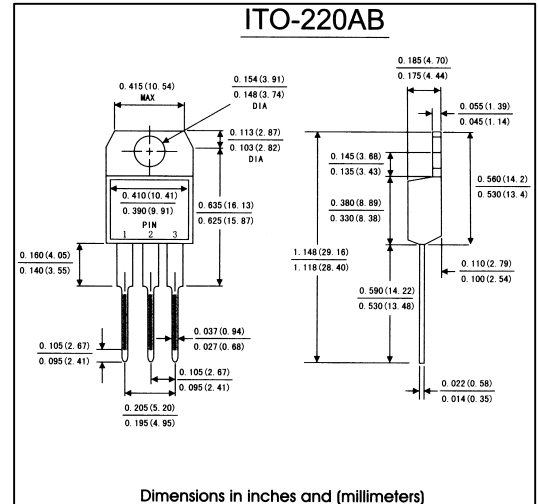
## FEATURES

- 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

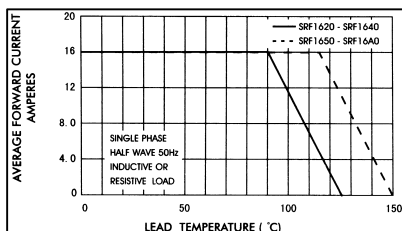
(Ratings at 25°C ambient temperature unless otherwise specified,Single phase,half wave,resistive or inductive) load. For capacitive load,derate by 20%)

	Symbols	SRF1620	SRF1630	SRF1640	SRF1650	SRF1660	SRF1680	SRF16A0	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	57	71	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	Volts
Macimum average forward rectified current(see Fig.1)	I <sub>(AV)</sub>	16.0							Amps
Repetitive peak forward current(square wavr, 20KHz) at Tc=105℃	I <sub>FRM</sub>	32.0							Amps
Peak forward surge current 8.3ms singel half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150.0							Amps
Maximum instantaneous forward voltage at 10 A(Note 1)	V <sub>F</sub>	0.65			0.75		0.80	0.85	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	TA=25℃ TA=125℃	I <sub>R</sub>	1.0					mA	
			30		50				
Typeical thermal resistance(Note 2)	R θ <sub>JC</sub>	5.0							℃/W
Operating junction temperature range	T <sub>J</sub>	-65 to +125			-65 to +150				℃
storage temperature range	T <sub>STG</sub>	-65 to +150							℃

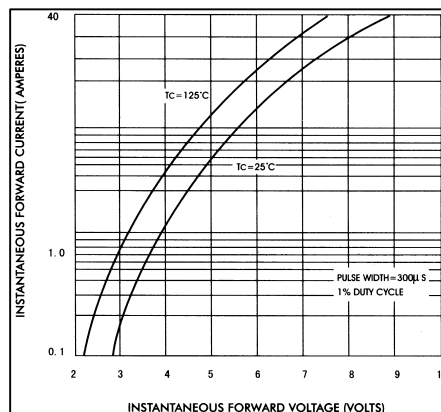
**Notes:** 1. Pulse test: 300  $\mu\text{s}$  pulse width,1% duty cycle  
2.Thermal resistance from junction to case

## RATINGS AND CHARACTERISTIC CURVES SRF1620 THRU SRF16A0

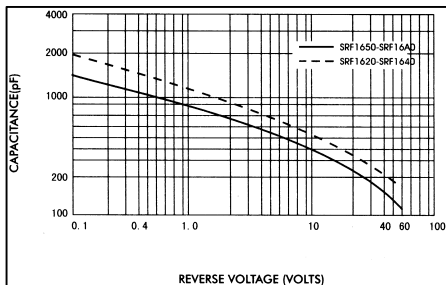
**FIG.1-FORWARD CURRENT DERATING CURVE**



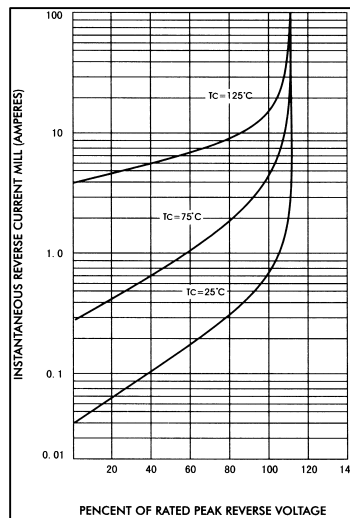
**FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4-TYPICAL JUNCTION CAPACITANCE**



**FIG.3-TYPICAL REVERSE CHARACTERISTICS**



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

