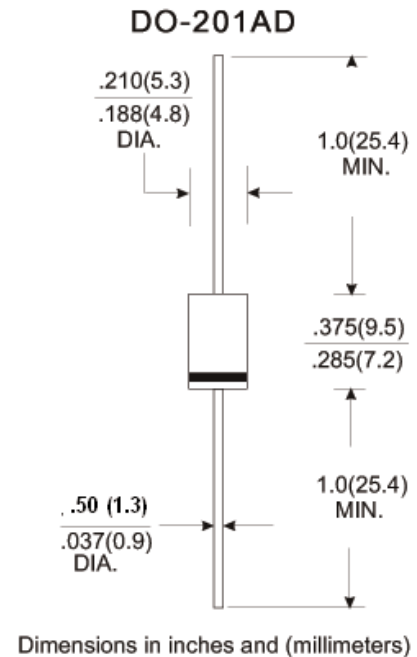


### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for over voltage 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
- High temperature soldering guaranteed:  
260°C/10 seconds at terminals,
- 0.375"(9.5mm)lead length,5lbs.(2.3kg)tension

### Mechanical Data

- Case: JEDEC DO-201AD molded plastic body
- Terminals: solder plated ,solder able per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041 ounce,1.15 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 820	SR 830	SR 840	SR 845	SR 860	SR 880	SR 8100	SR 8150	SR 8200	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	45	60	80	100	150	200	Volts
Maximum RMS Voltage	$V_{RMS}$	14	21	28	31.5	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	45	60	80	100	150	200	Volts
Maximum average forward rectified current (see Fig.1)	$I_{(AV)}$	10									Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150									Amp
Maximum instantaneous forward voltage at 5.0 A(Note 1)	$V_F$	0.60			0.75	0.85	0.90	0.95			Volts
Maximum Reverse Current $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$	15			50					mAmp	
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.5									°C/W
Operating Temperature Range	$T_J$	-65 to +125			-65 to +150						°C
Storage Temperature Range	$T_{STG}$	-65 to +150									°C

### NOTES:

1. Pulse test: 300  $\mu$  Spulse width, 1% duty cycle
2. Thermal resistance from junction to lead vertical P.C.B. mounted , 0.375"(9.5mm)lead length

FIG.1-FORWARD CURRENT DERATING CURVE

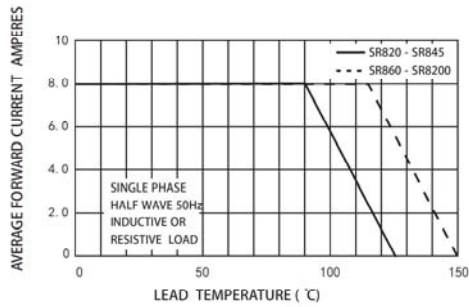


FIG.4-TYPICAL JUNCTION CAPACITANCE

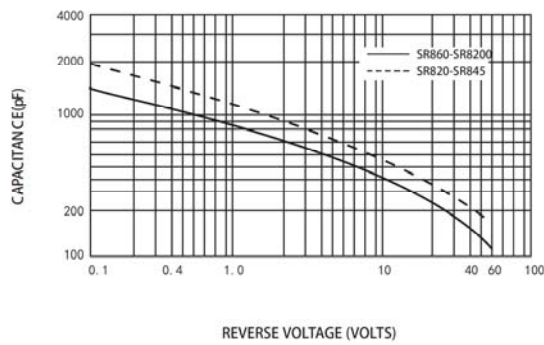


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

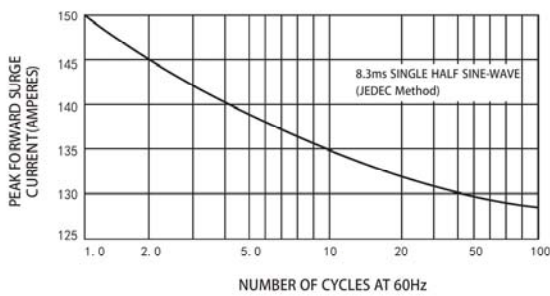


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

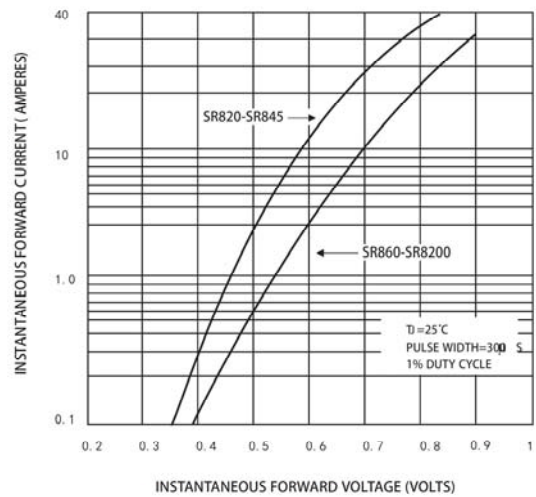


FIG.3-TYPICAL REVERSE CHARACTERISTICS

