

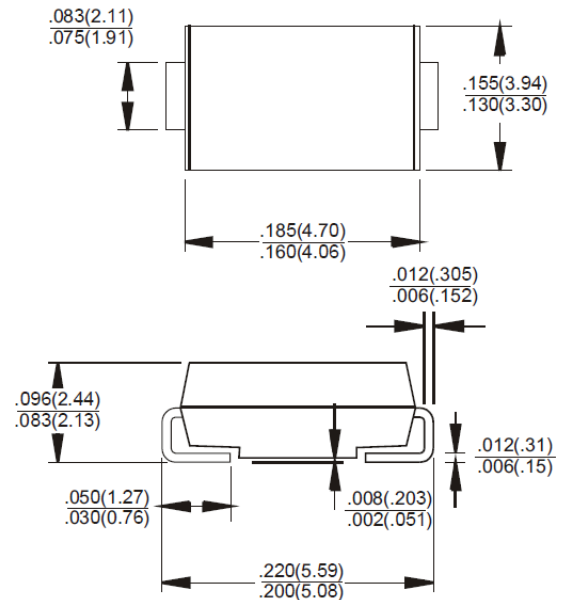
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- Low power loss, high efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 260°C/10 seconds at terminals

Mechanical Data

- Case: JEDEC SMB(DO-214AA) molded plastic body
- Terminals: solder plated, solder able per MIL-STD-750, method 2026
- Polarity: Color band denotes positive end (cathode)
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.003 ounce, 0.093 gram

SMB/DO-214AA



Dimensions in inches and (millimeters)

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	SR82	SR83	SR84	SR85	SR86	SR88	SR89	SR810	SR815	SR820	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	90	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	57	63	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	90	100	150	200	Volts
Maximum Average Forward Rectified Current at TL (See figure 1)	$I_{(AV)}$	8.0										Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150.0										Amp
Maximum instantaneous forward voltage at 8.0 A (Note 1)	V_F	0.55		0.75			0.85		0.90		0.95	Volts
Maximum Reverse Current (Note 1) $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=100^\circ\text{C}$	I_R	0.5										mAmp
		20										
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	17.0										°C/W
	$R_{\theta JA}$	55.0										
Operating Temperature Range	T_J	-65 to +150										°C
Storage Temperature Range	T_{STG}	-65 to +150										°C

NOTES:

1. Pulse test: 300 s pulse width, 2% duty cycle
2. Mounted on P.C. Board with 14mm2 (.013mm thick) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES

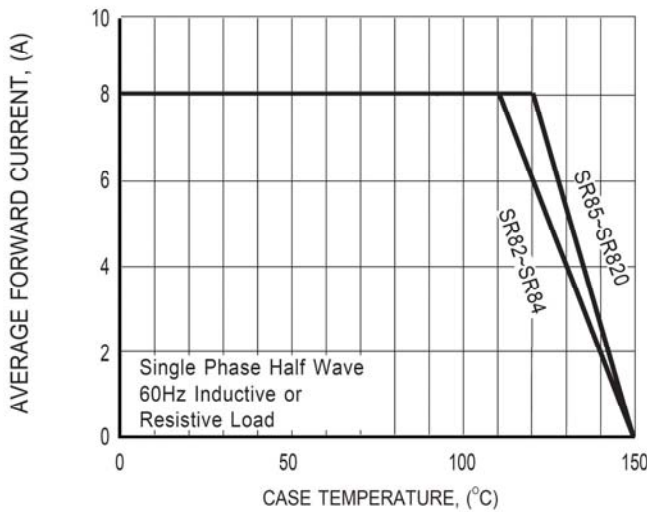


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

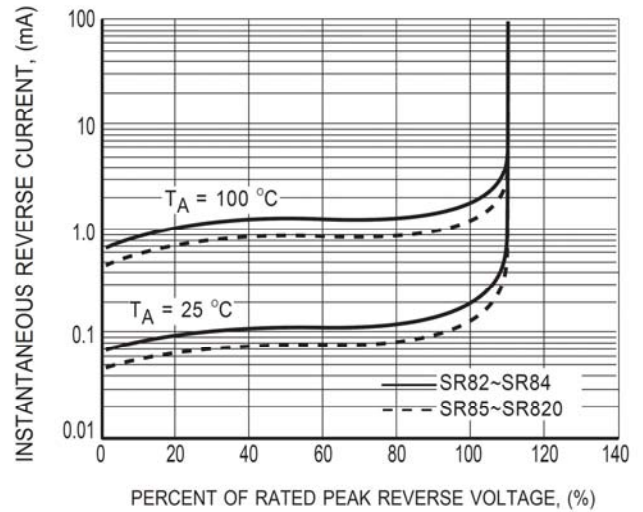


FIG.2 TYPICAL REVERSE CHARACTERISTICS

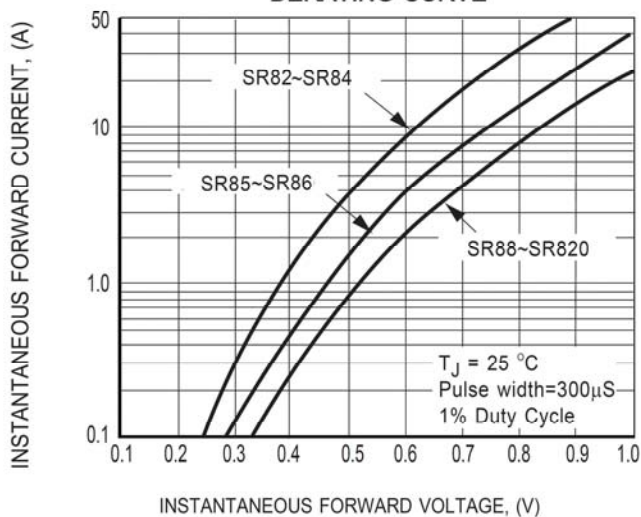


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

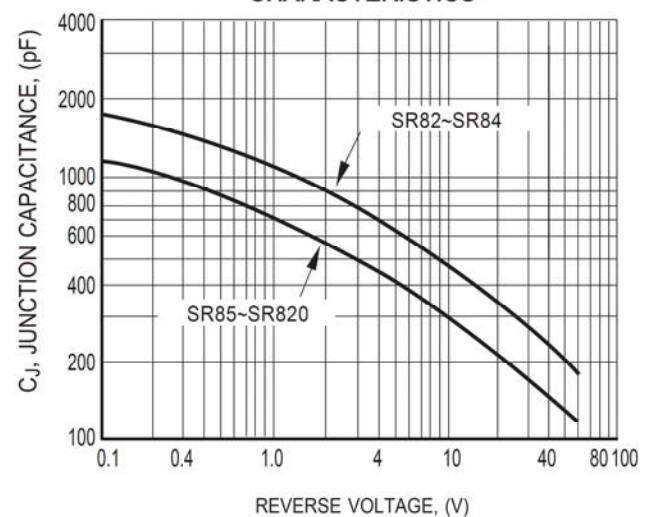


FIG.4 TYPICAL JUNCTION CAPACITANCE

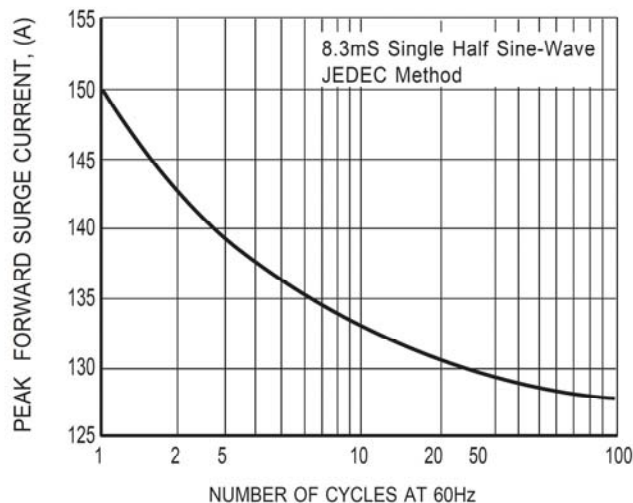


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT