



SURFACE MOUNT BARRIER RECTIFIER

SRB820 THRU SRB8100

VOLTAGE RANGE

20 to 100 Volts

CURRENT

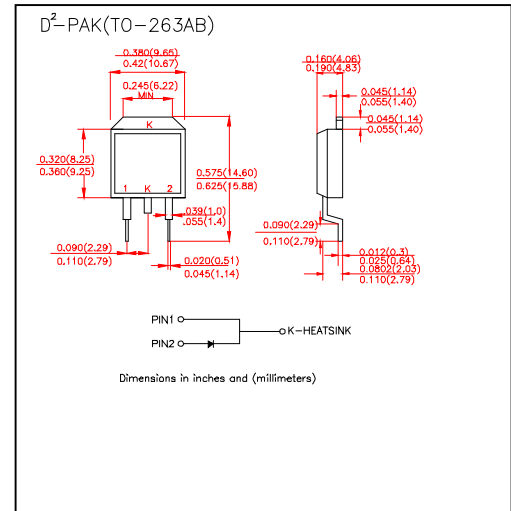
8.0 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Metal silicon junction majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capacity
- For use in low voltage high frequency inverters, Free wheeling ,and polarity protection applications
- Guardring for over voltage protection
- High temperature soldering in accordance with CECC 802/Reflow guaranteed

MECHANICAL DATA

- Case: JEDEC TO-263AB molded Plastic body
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Mounting Position: Any
- Weight: 0.06 ounce, 1.7 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	SRB820	SRB830	SRB835	SRB840	SRB845	SRB850	SRB860	SRB880	SRB8100	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	35	40	45	50	60	80	100	Volts
Maximum RMS Voltage	V_{RMS}	14	21	25	28	32	35	42	56	70	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	35	40	45	50	60	80	100	Volts
Maximum Average Forward Rectified Current at $T_C=100^\circ\text{C}$	$I_{(AV)}$	8.0									Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150									Amps
Maximum Forward Voltage at 8.0A per element	V_F	0.55			0.75			0.85			Volts
Maximum DC Reverse Current at rated DC Blocking Voltage per element	$T_C = 25^\circ\text{C}$	0.5									mA
	$T_C = 100^\circ\text{C}$	50									
Typical Junction Capacitance (Note 2)	C_J	400									pF
Typical thermal Resistance (Note1)	$R_{\theta JL}$	3.0									$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	(-55 to +150)									$^\circ\text{C}$

Notes:

1. Thermal Resistance Junction to CASE
2. Measured at $V_R=4V$ and $f=1\text{MHz}$



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RATING AND CHARACTERISTIC CURVES SRB820 THRU SRB8100

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

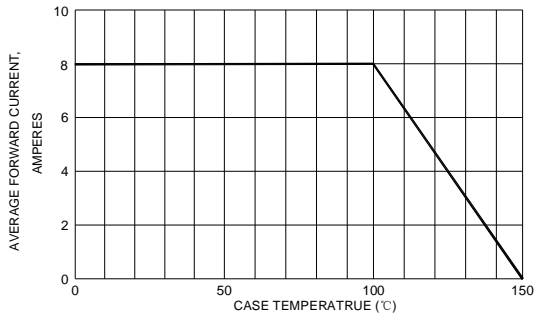


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

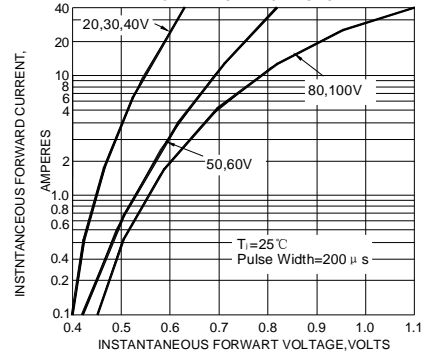


FIG.2-TYPICAL REVERSE CHARACTERISTICS

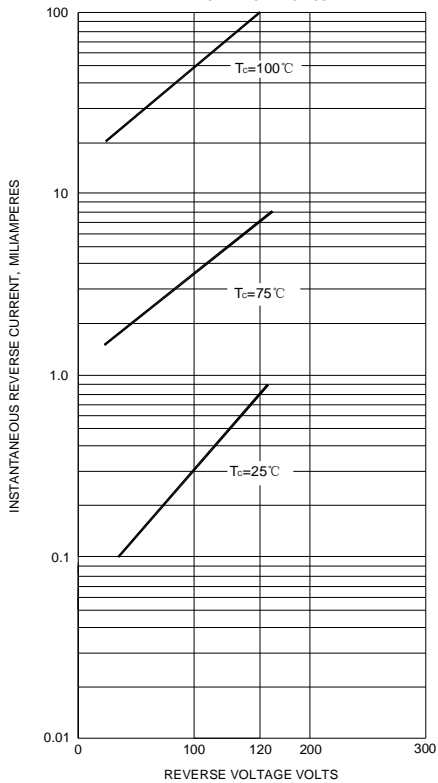


FIG.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

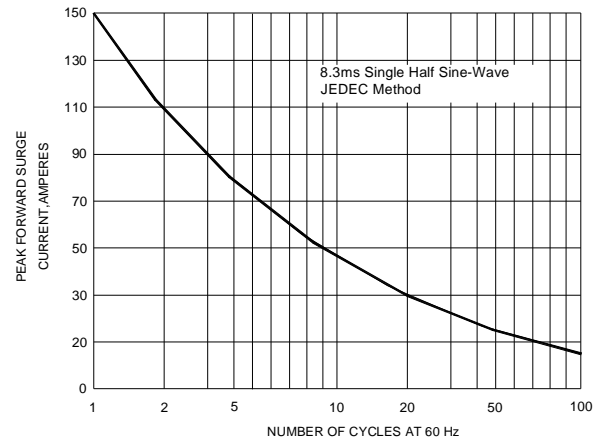


FIG.5-TYPICAL JUNCTION CAPACITANCE

