



**SURFACE MOUNT BARRIER RECTIFIER**

**SRB320 THRU SRB3100**

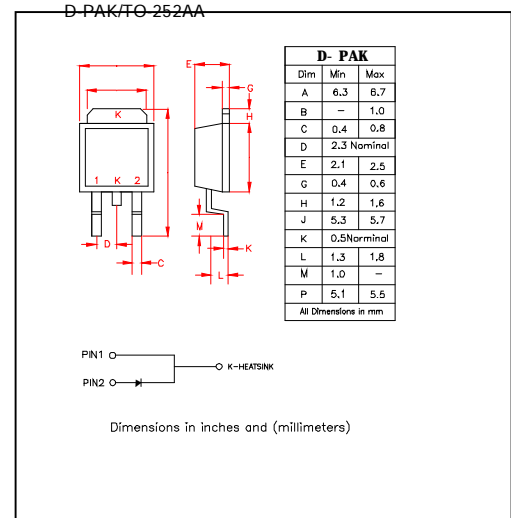
<b>VOLTAGE RANGE</b>	<b>20 to 100 Volts</b>
<b>CURRENT</b>	<b>3.0 Ampere</b>

**FEATURES**

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

**MECHANICAL DATA**

- Case: D-PAK/TO-252AA molded Plastic
- Terminals :Solder plated solderable per MIL-STD-750, METHOD 2026
- Polarity: Color band denotes cathode
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.015 ounce,0.4 gram



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

- Ratings at 25°C ambient temperature unless otherwise specified.
- Resistive or inductive load

	SYMBOLS	SRB320	SRB330	SRB340	SRB350	SRB360	SRB380	SRB3100	UNIT
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	56	70	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current at $T_C=80^\circ C$	$I_{(AV)}$	3.0							Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	80							Amps
Maximum Instantaneous Forward Voltage @ 3.0A(Note1)	$V_F$	0.55		0.75		0.85		Volts	
Maximum DC Reverse Current (Note1) at rated DC blocking voltage	$T_A = 25^\circ C$	0.5							mA
	$T_A = 100^\circ C$	15.0							
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	6.0							°C/W
	$R_{\theta JA}$	80.0							
Typical Junction Capacitance $C_j$ (Note 3)	$C_j$	400							pF
Operating Junction Temperature Range	$T_J$	(-55 to +150)							°C
Storage Temperature Range	$T_{STG}$	(-55 to +150)							°C

**Notes:**

1. Pulse test with  $PW=300 \mu sec, 2\%$  duty cycle
2. mounted on P.C. Board with 14mm2(.013mm thick) copper pad areas
3. Measured at  $f=1.0MHz$  and  $V_R=4V$



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**RATING AND CHARACTERISTIC CURVES SRB320 THRU SRB3100**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

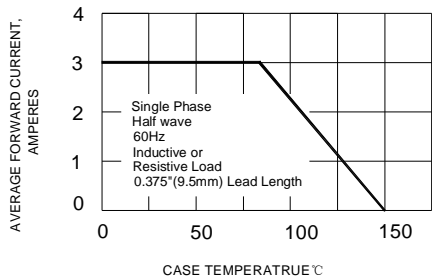


FIG.2-TYPICAL REVERSE CHARACTERISTICS

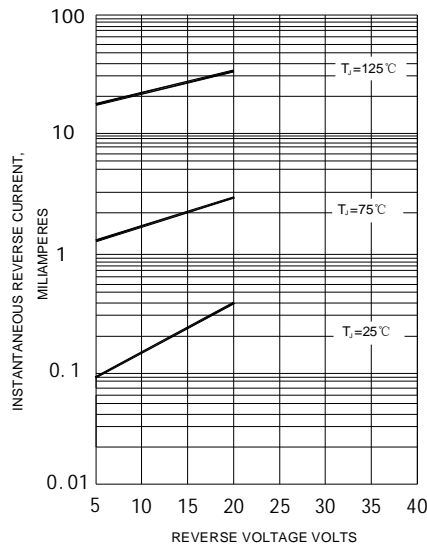


FIG.3-MAXIMUM NON-REPETITIVE SURGE CURRENT

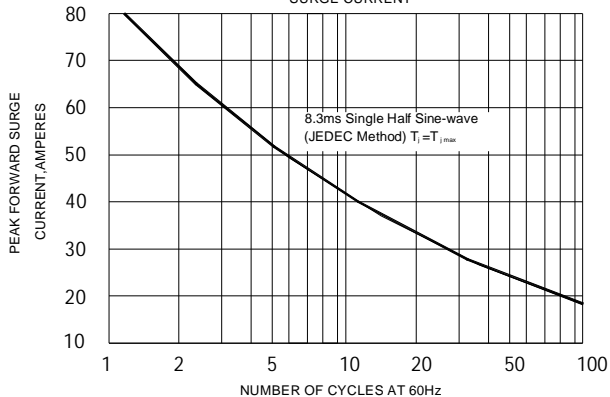


FIG.4-TYPICAL REVERSE CHARACTERISTICS

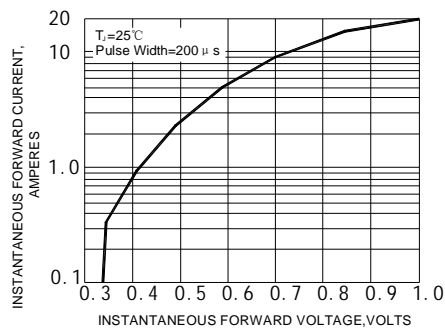


FIG.5-TYPICAL JUNCTION CAPACITANCE

