

SR0520 THRU SR05200

LOW Vf SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 200 Volts CURRENT 0.5 Ampere

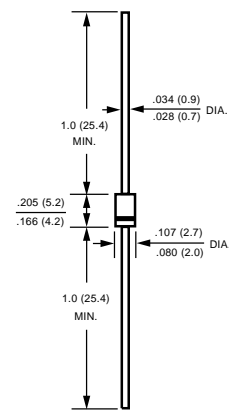
FEATURES

- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * High surge capability
- * High reliability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.33 gram

DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	SR0520	SR0530	SR0540	SR0550	SR0560	SR0580	SR05100	SR05150	SR05200	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at $T_A=100^{\circ}C$	I_O	0.5									Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60									Amps
Typical Current Squared Time	i^2T	14.9									A^2S
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	50									$^{\circ}C/W$
	$R_{\theta JL}$	15									
Typical Junction Capacitance (Note 3)	C_J	110									pF
Operating Temperature Range	T_J	150									$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to + 150									$^{\circ}C$

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	SR0520	SR0530	SR0540	SR0550	SR0560	SR0580	SR05100	SR05150	SR05200	UNITS
Maximum Instantaneous Forward Voltage at 0.5A DC	V_F	.30									Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^{\circ}C$	1.0									mA
	@ $T_A = 100^{\circ}C$	10									

- NOTES : 1. Thermal Resistance : At 9.5mm lead lengths, PCB mounted.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
4. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

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RATING AND CHARACTERISTICS CURVES (SR0520 THRU SR05200)

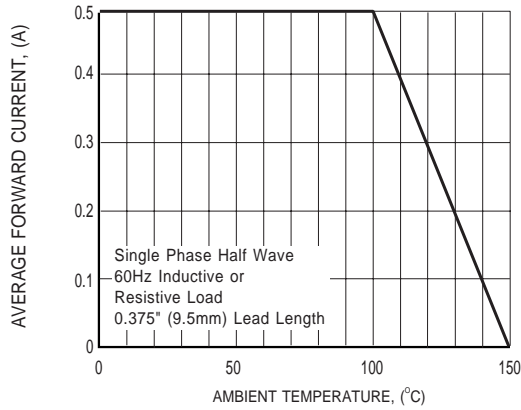


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

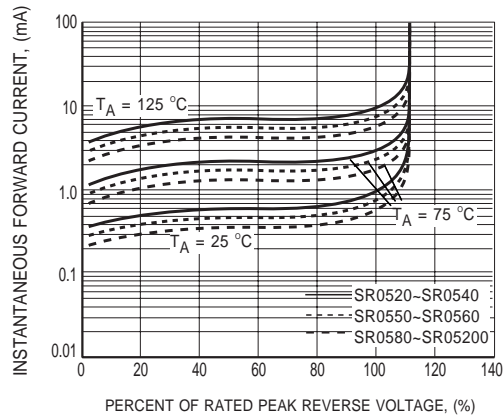


FIG.2 TYPICAL REVERSE CHARACTERISTICS

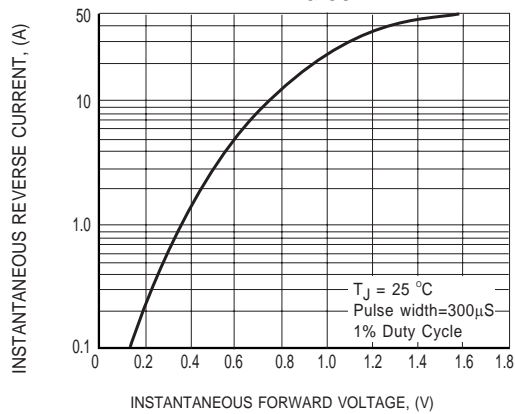


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

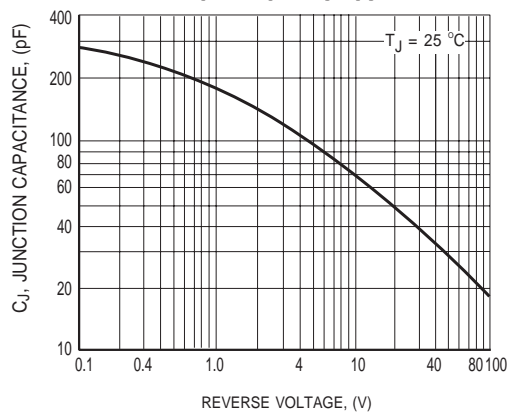


FIG.4 TYPICAL JUNCTION CAPACITANCE

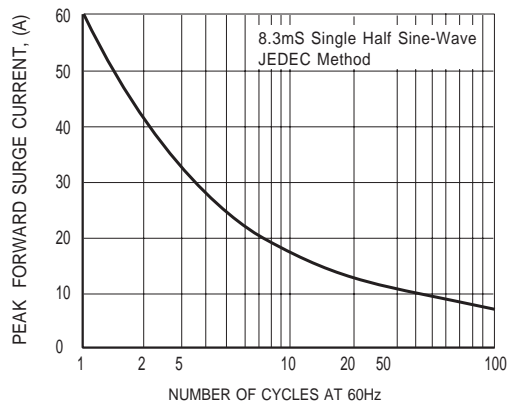


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-41	-B	1,000	194*75*21	415*220*255	50,000	16.2

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-41	-T	5,000	5.0	52	330	355*350*335	20,000	10.49

AMMO PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	BOX SIZE (mm)	CARTON SIZE(mm)	CARTON (EA)	GROSS WEIGHT (Kg)
DO-41	-F	3,000	5.0	52	255*73*100	400*268*225	30,000	13.0
DO-41	-E	3,000	5.0	26	256*48*94	365*270*217	42,000	12.41

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