RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

SR220 THRU SR2200

SCHOTTKY BARRIER RECTIFIER

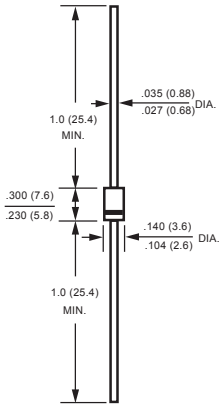
VOLTAGE RANGE 20 to 200 Volts CURRENT 2.0 Amperes

FEATURES
* Low switching noise
* Low forward voltage drop
* High current capability
* High switching capability
* High surge capabitity
* High reliability
* P/N suffix V means AEC-Q101 qualified, e.g:SR220V
* P/N suffix V means Halogen-free

MECHANICAL DATA
* Case: Molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.40 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.

DO-15



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	SR220	SR230	SR240	SR250	SR260	SR280	SR2100	SR2150	SR2200	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 Derating Lead Temperature	I_O	2.0									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)	$R_{\theta JA}$	45									$^0C/W$
	$R_{\theta JL}$	15									
Typical Junction Capacitance (Note 2)	C_J	180									pF
Operating Temperature Range	T_J	-55 to + 150									^0C
Storage Temperature Range	T_{STG}	-55 to + 150									^0C

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

CHARACTERISTICS		SYMBOL	SR220	SR230	SR240	SR250	SR260	SR280	SR2100	SR2150	SR2200	UNITS
Maximum Instantaneous Forward Voltage at 2.0A DC		V_F	.55			.70		.85				Volts
Maximum Average Reverse Current	@T_A = 25°C	I_R	0.2									mA
at Rated DC Blocking Voltage	@T_A = 150°C		12									mA
Maximum Reverse Recovery Time (Note 3)		T_{rr}	20									nSec

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. Test Conditions: IF= 0.5A, IR= -1.0A, IRR= -0.25A.

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RATING AND CHARACTERISTICS CURVES (SR220 THRU SR2200)

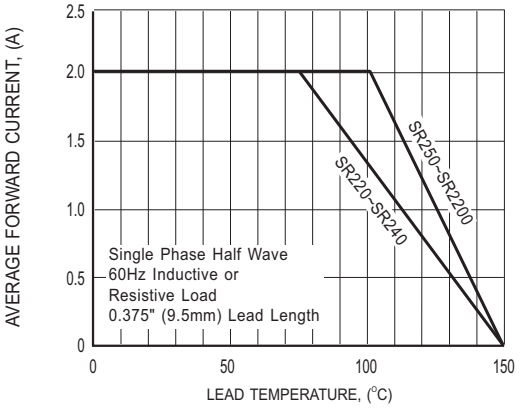

FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

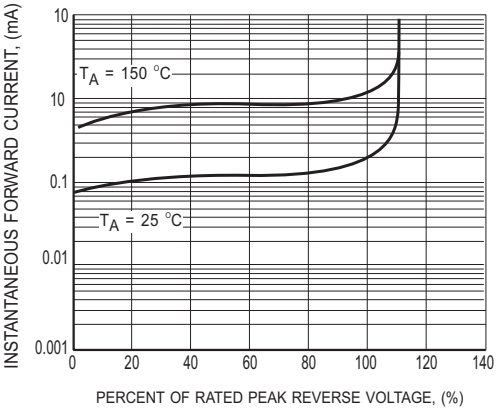

FIG.2 MAXIMUM REVERSE CHARACTERISTICS

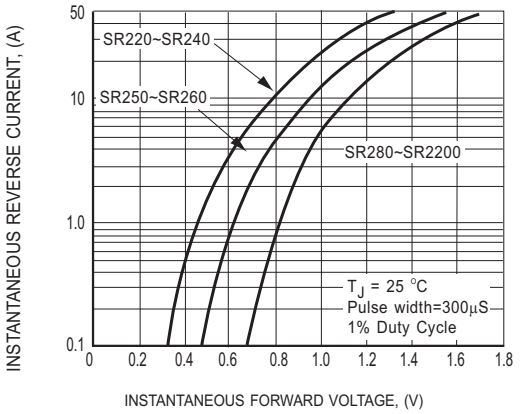

FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

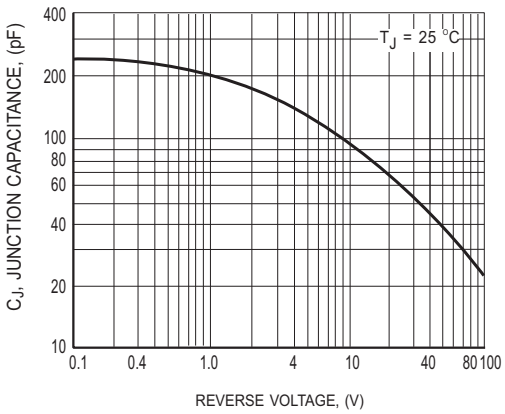

FIG.4 TYPICAL JUNCTION CAPACITANCE

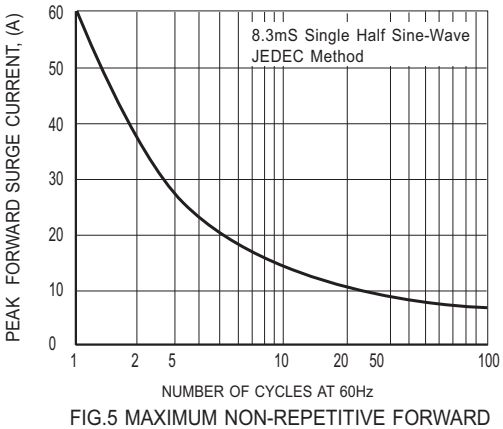

FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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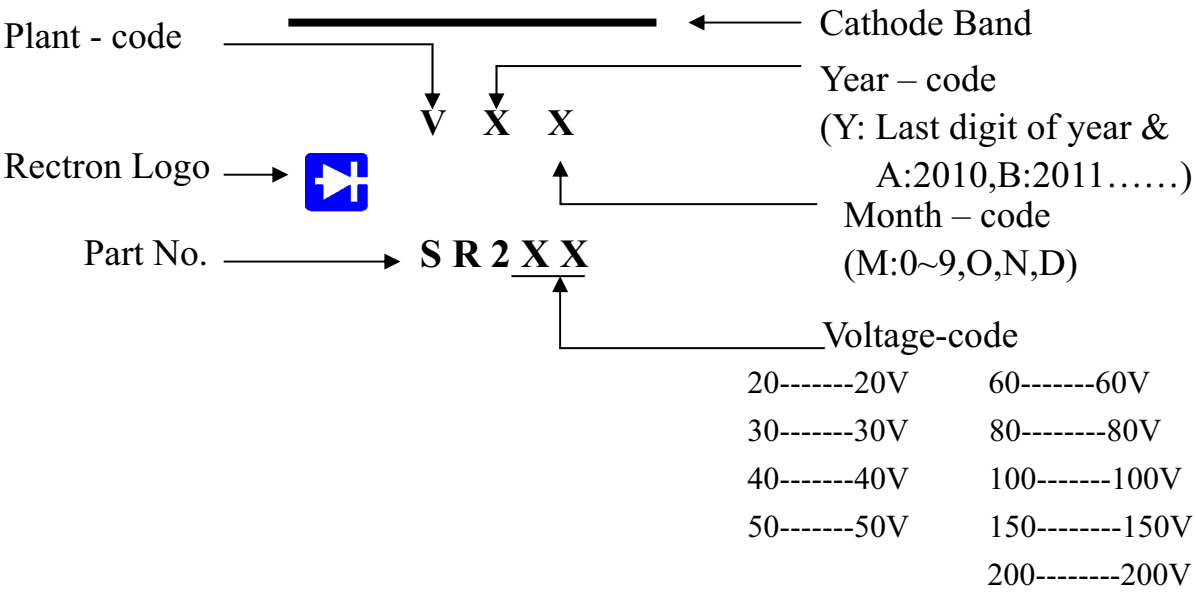
Attachment information about SR2XX

1. Internal Circuit

2. Marking on the body



AXIAL LEAD TAPING SPECIFICATIONS FOR RECTIFIERS

Axial lead devices are packed in accordance with EIA standard RS-296-D and specifications given below.

COMPNENT OUTLINE	COMPONENT PITCH A	INNER TAPE PITCH B		CUMULATIVE PITCH TOLERANCE
	±0.5mm (.020")	±0.5mm (.020")	±1.5mm (.059")	
R-1	5.0mm	26.0mm	52.4mm	2.0mm/20pitch
A-405	5.0mm	26.0mm		2.0mm/20pitch
A-405	5.0mm		52.4mm	2.0mm/20pitch
DO-41	5.0mm	26.0mm		2.0mm/20pitch
DO-41	5.0mm		52.4mm	2.0mm/10pitch
DO-15	5.0mm		52.4mm	2.0mm/10pitch
R-3	5.0mm		52.4mm	2.0mm/10pitch
DO-201AD	10.0mm		52.4mm	2.0mm/10pitch
R-6	10.0mm		52.4mm	2.0mm/10pitch

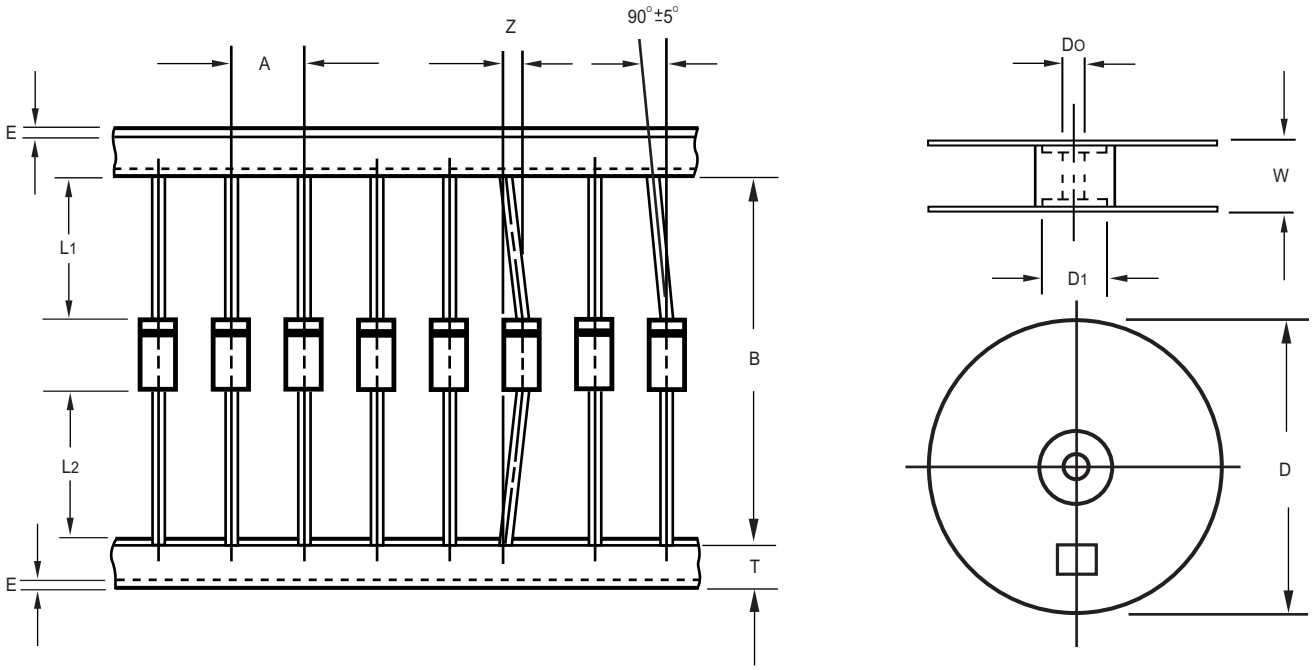


Fig.: Configuration of AXIAL LEAD TAPING

ITEM	SYMBOL	SPECIFICATIONS (mm)	SPECIFICATIONS (inch)
Component alignment	Z	1.2 Max.	0.047 Max.
Tape width	T	6.0±0.4	0.236±0.016
Exposed adhesive	E	0.8 Max.	0.032 Max.
Body eccentricity	IL1-L2I	1.0 Max.	0.039 Max.
Reel outside diameter	D	330.0	13.0
Reel inner diameter	D1	85.7±0.3	3.374±0.012
Feed hole diameter	D0	30.5±0.4	1.201±0.016
Reel width	W	79.0±1.0	3.110±0.039

Notes : 1.Each component lead shall be sandwiched between tapes for a minimum of 3.2mm (0.126").
2.The reel width "W" for 26mm taping is 50.0±1.0mm (1.97" ± 0.040").

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-15	-B	500	194*84*21	415*220*255	25,000	12.74

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-15	-T	4,000	4,000	5.0	52	330	355*350*335	16,000	10.05

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-15	-F	1,500	5.0	52	255*73*100	400*268*225	15,000	8.8

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