



' 2 Plastic-Encapsulate Diodes

SR1020 THRU SR10200 Schottky Rectifier Diodes

Features

- $I_{F(AV)}$ 10A
- V_{RRM} 20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

DO-27

Applications

- Rectifier

Marking

- SR10X

X : From 20 To 200

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SR10														
				20	30	40	50	60	80	100	150	200						
Repetitive Peak Reverse Voltage	V_{RRM}	V		20	30	40	50	60	80	100	150	200						
Maximum RMS Voltage	V_{RMS}	V		14	21	28	35	42	56	70	105	140						
Average Forward Current	$I_{F(AV)}$	A	60HZ Half-sine wave, Resistance load, TL(FIG.1)	10.0														
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a = 25^\circ C$	250														
Junction Temperature	T_J	$^\circ C$		-55~+125					-55~+150									
Storage Temperature	T_{STG}	$^\circ C$		-55 ~ +150														

Electrical Characteristics ($T = 25^\circ C$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	SR10															
				20	30	40	50	60	80	100	150	200							
Peak Forward Voltage	V_{FM}	V	$I_{FM} = 10.0A$	0.65		0.75		0.85		0.95									
Peak Reverse Current	I_{RRM1}	mA	$V_{RM} = V_{RRM}$	$T_a = 25^\circ C$				0.5		0.1									
	I_{RRM2}			$T_a = 100^\circ C$				20		10									
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ C/W$	Between junction and ambient				50												
	$R_{\theta J-L}$		Between junction and lead				15												
Typical junction capacitance	CJ	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.				400												

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

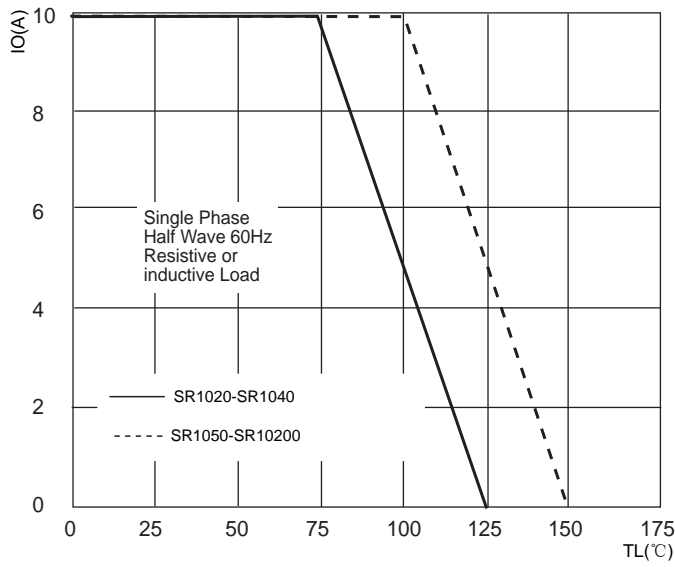


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

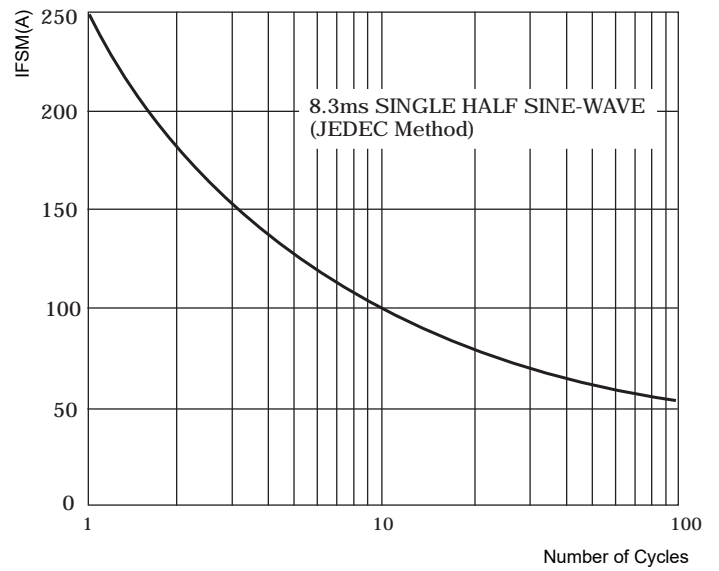


FIG.3: TYPICAL FORWARD CHARACTERISTICS

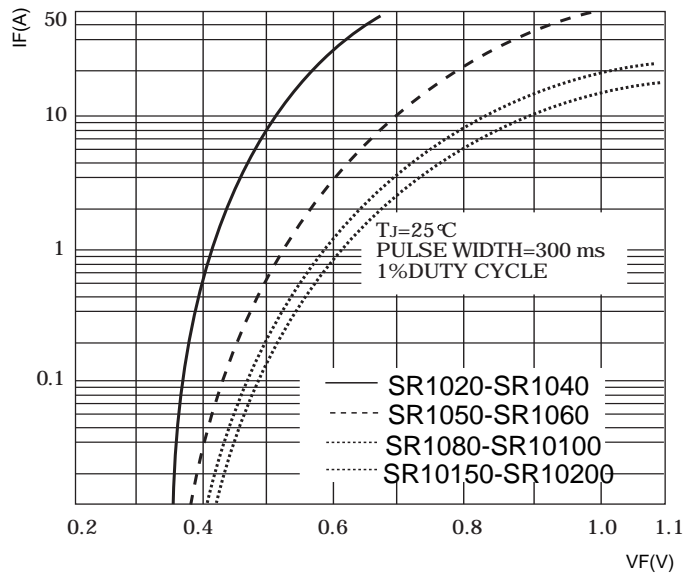
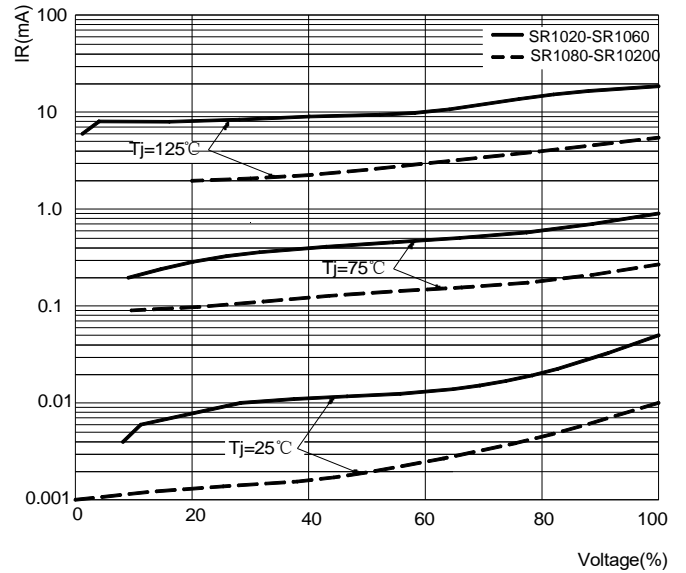
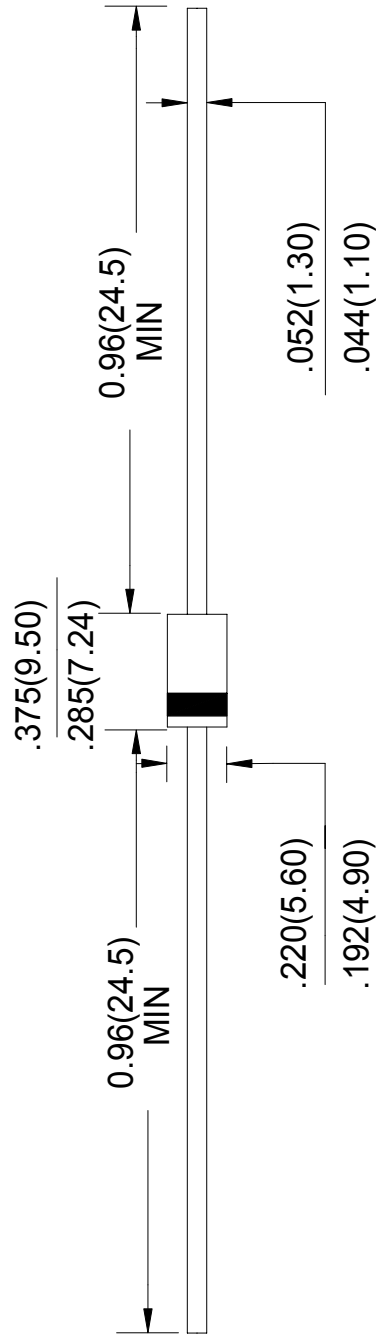


FIG.4: TYPICAL REVERSE CHARACTERISTICS



DO-27 Package Outline Dimensions

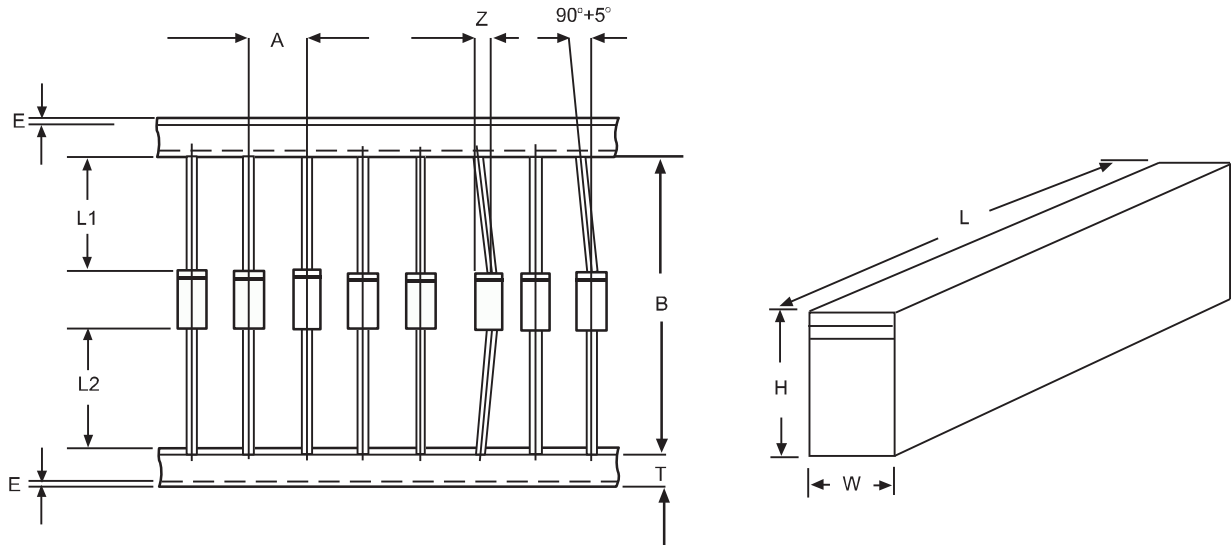


Unit: in inches (millimeters)

Ammo Box Packaging Specifications For Axial Lead Rectifiers

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

COMPONENT OUTLINE	COMPONENT PITCH A	INNER TAPE PITCH B	CUMULATIVE PITCH TOLERANCE
	$\pm 0.5\text{mm}(.020'')$	$+0.5\text{mm}(.020'')$	
R-1	5.0mm	26.0mm	2.0mm/20pitch
R-1	5.0mm	52.4mm	2.0mm/10pitch
A-405	5.0mm	26.0mm	2.0mm/20pitch
A-405	5.0mm	52.4mm	2.0mm/10pitch
DO-34/DO-35	5.0mm	26.0mm	2.0mm/20pitch
DO-34/DO-35	5.0mm	52.4mm	2.0mm/10pitch
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
DO-27	10.0mm	52.4mm	2.0mm/10pitch
R-6	10.0mm	52.4mm	2.0mm/10pitch



ITEM	SYMBOL	SPECIFICATIONS(mm)	SPECIFICATIONS(inch)
Component alignment	Z	1.2max	0.048max
Tape width	T	6.0 ± 0.4	0.236 ± 0.016
Exposed adhesive	E	0.8max	0.032max
Body eccentricity	$ L1-L2 $	1.0max	0.040max
Box length	L	255.0 ± 5.0	10.04 ± 0.197
Box width	W	78.0 ± 5.0	3.07 ± 0.197
Box height	H	150.0 ± 5.0	5.91 ± 0.197

NOTE: Each component lead shall be sandwiched between tapes for A minimum of 3.2mm(0.126'')