

DO-27 Plastic-Encapsulate Diodes

Schottky Rectifier Diodes

Features

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

Applications

- Rectifier

Marking

- SR10X

X : From 20 To 200

DO-27



Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SR10								
				20	30	40	45	60	80	100	150	200
Repetitive Peak Reverse Voltage	V _{RRM}	V		20	30	40	45	60	80	100	150	200
Maximum RMS Voltage	V _{RMS}	V		14	21	28	32	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 , Ta =25℃	200								
Junction Temperature	T _J	℃		-55~+150								
Storage Temperature	T _{STG}	℃		-55 ~ +150								

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

Item	Symbol	Unit	Test Condition		SR10						
					20	30	40	45	60	80	100
Peak Forward Voltage	V _{FM}	V	I _{FM} =10.0A		0.55			0.75	0.85		0.95
Peak Reverse Current	I _{RRM1}	mA	V _{RM} =V _{RRM}	T _a =25°C	0.5			0.1			
	T _a =100°C			20			10				
Thermal Resistance(Typical)	R _{θJ-A}	°C/W	Between junction and ambient		50						
	R _{θJ-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

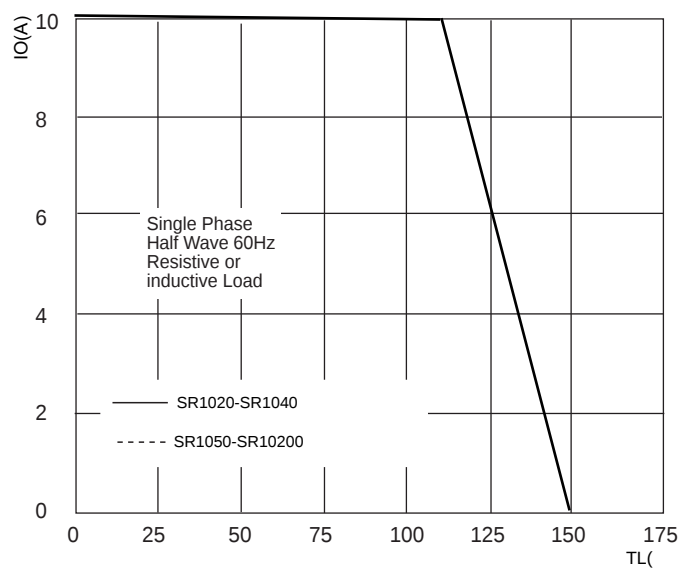


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

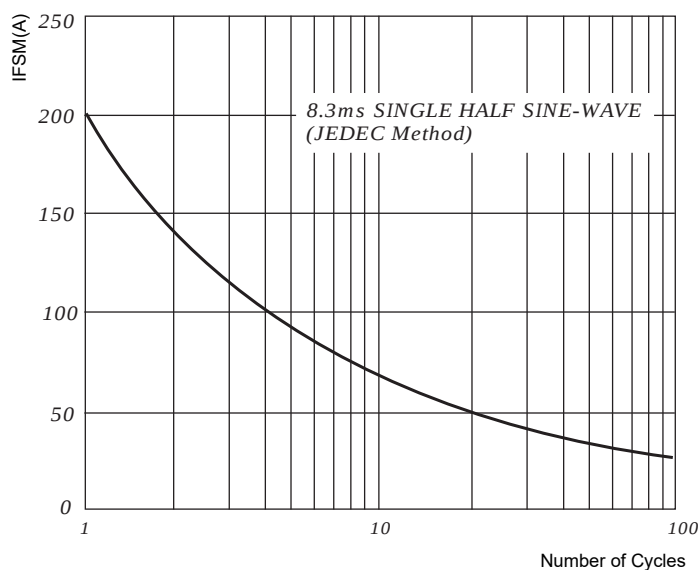


FIG.3: TYPICAL FORWARD CHARACTERISTICS

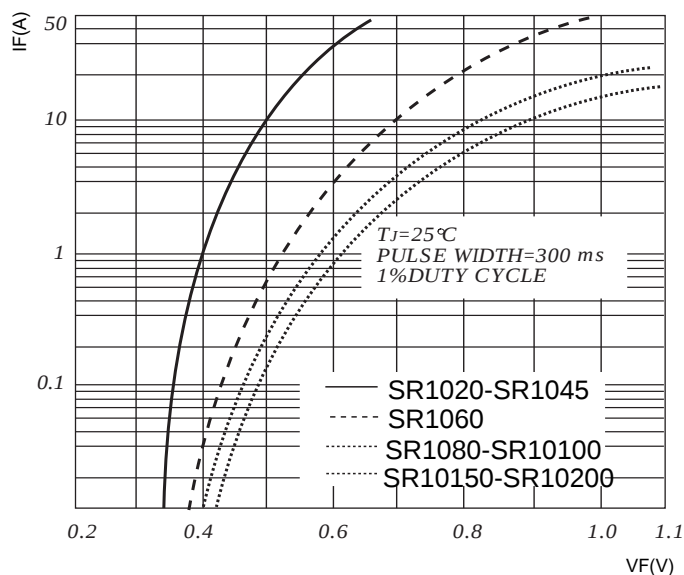
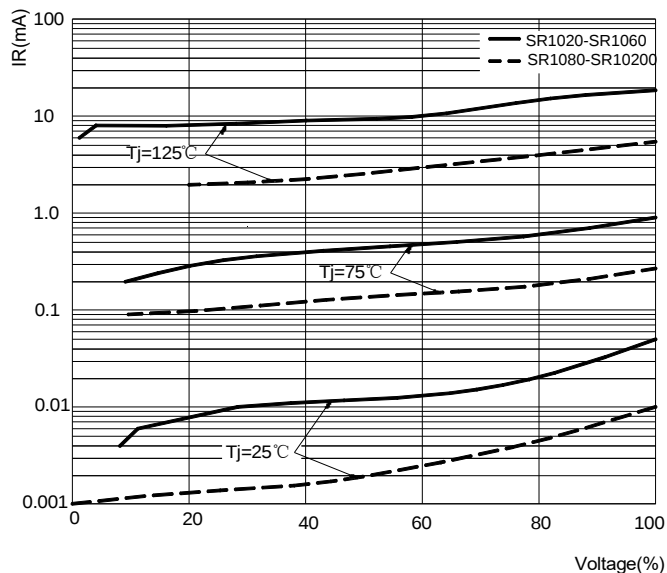
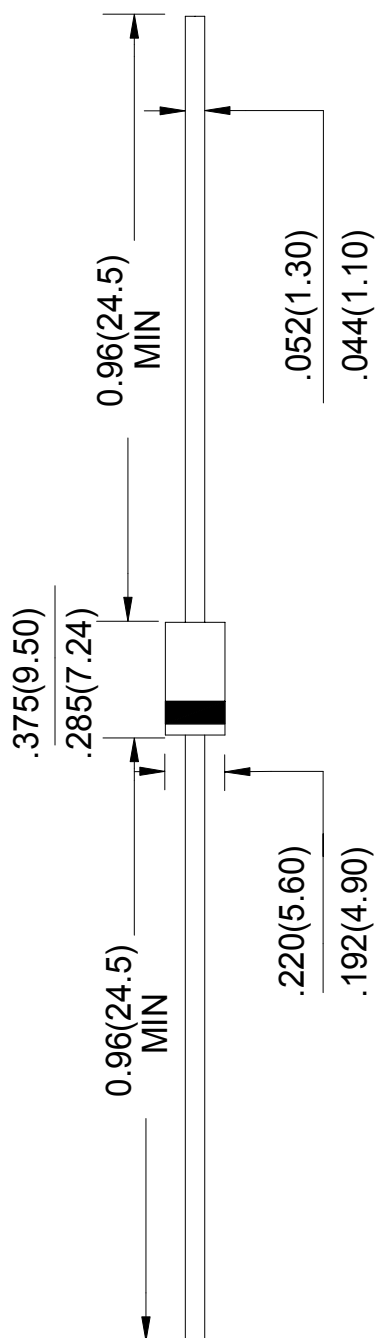


FIG.4: TYPICAL REVERSE CHARACTERISTICS



DO-27 Package Outline Dimensions

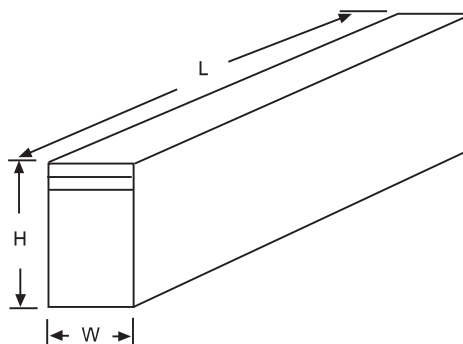
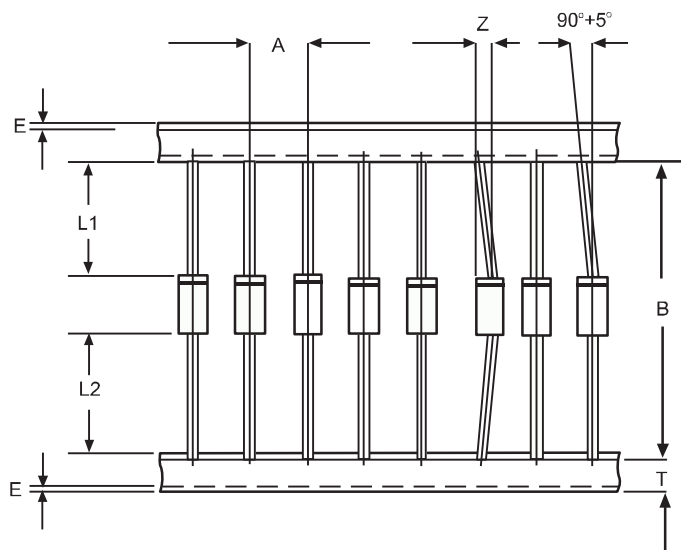


Unit: in inches (millimeters)

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'')