



DO-27 Plastic-Encapsulate Diodes

1N5820 THRU 1N5822 Schottky Rectifier Diodes

Features

- $I_{F(AV)}$ 3A
- V_{RRM} 20V-40V
- High surge current capability
- Polarity: Color band denotes cathode

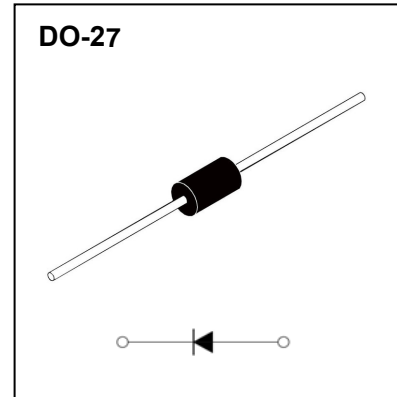
Applications

- Rectifier

Marking

- 1N582X

X : From 0 To 2



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	1N58		
				20	21	22
Repetitive Peak Reverse Voltage	V_{RRM}	V		20	30	40
Maximum RMS Voltage	V_{RMS}	V		14	21	28
Maximum DC Blocking Voltage	V_{DC}	V		20	30	40
Average Forward Current	$I_{F(AV)}$	A	60HZ Half-sine wave, Resistance load, ($T_L=95^\circ C$)	3.0		
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave , 1 cycle , $T_a=25^\circ C$	80		
Junction Temperature	T_J	$^\circ C$		-55 ~ +125		
Storage Temperature	T_{STG}	$^\circ C$		-55 ~ +150		

Electrical Characteristics (T=25°C Unless otherwise specified)

Item	Symbol	Unit	Test Condition	1N58		
				20	21	22
Maximum Peak Forward Voltage	V_{FM}	V	$I_{FM}=3.0A$	0.475	0.5	0.525
Maximum Peak Reverse Current	I_{RRM1}	mA	$V_{RM}=V_{RRM}$	$T_J=25^\circ C$		
	I_{RRM2}			$T_J=125^\circ C$		
Typical junction capacitance	C_J	pF	Measured at 1MHz and applied reverse voltage of 4.0V D.C.	300		
Typical Thermal Resistance	$R_{\theta J-A}$	$^\circ C/W$	Between junction and ambient	40		
	$R_{\theta J-L}$		Between junction and lead	20		

Notes:

1) Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted

Typical Characteristics

FIG.1 FORWARD CURRENT DERATING CURVE

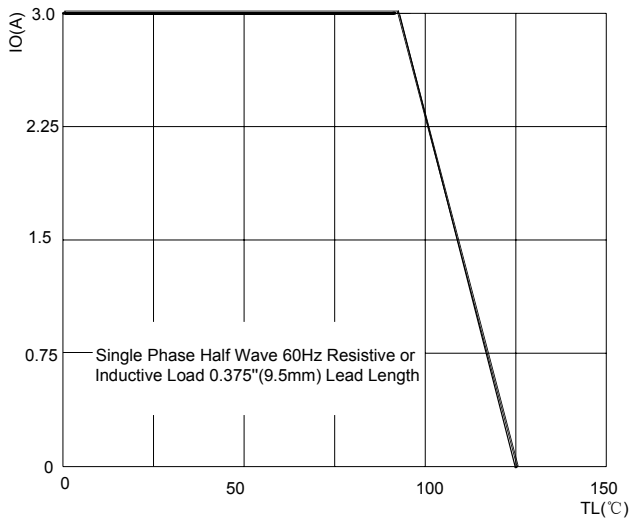


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

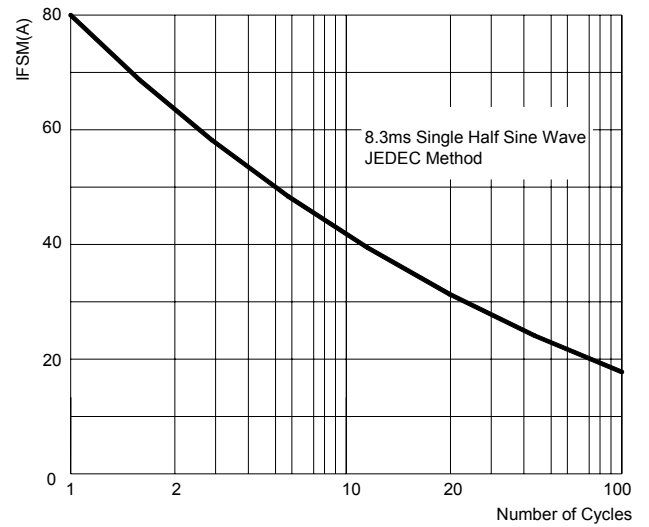


FIG.3: TYPICAL FORWARD CHARACTERISTICS

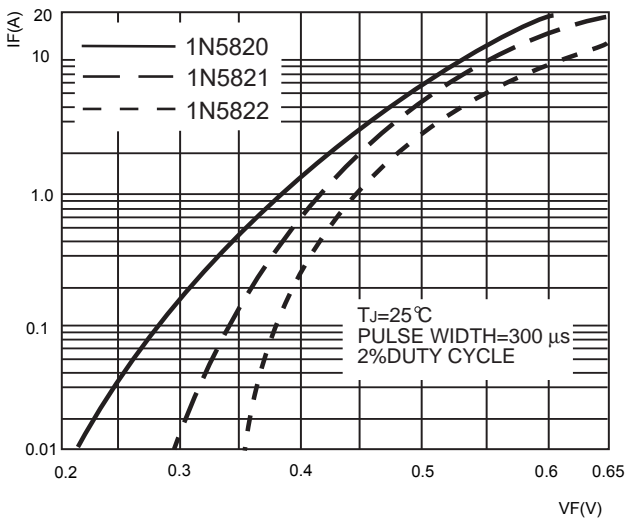
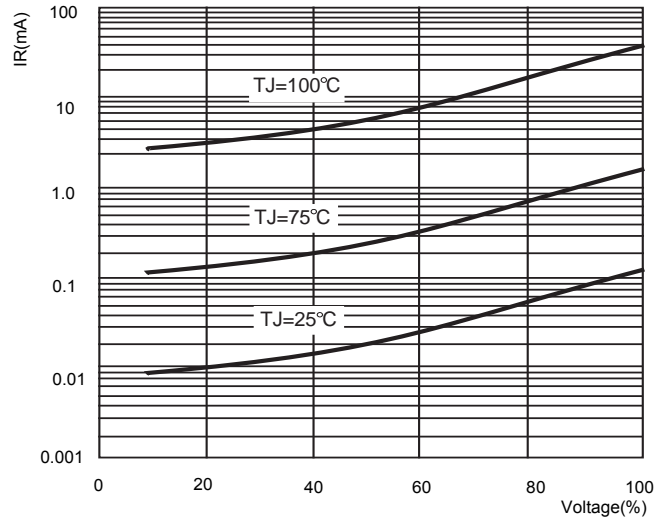
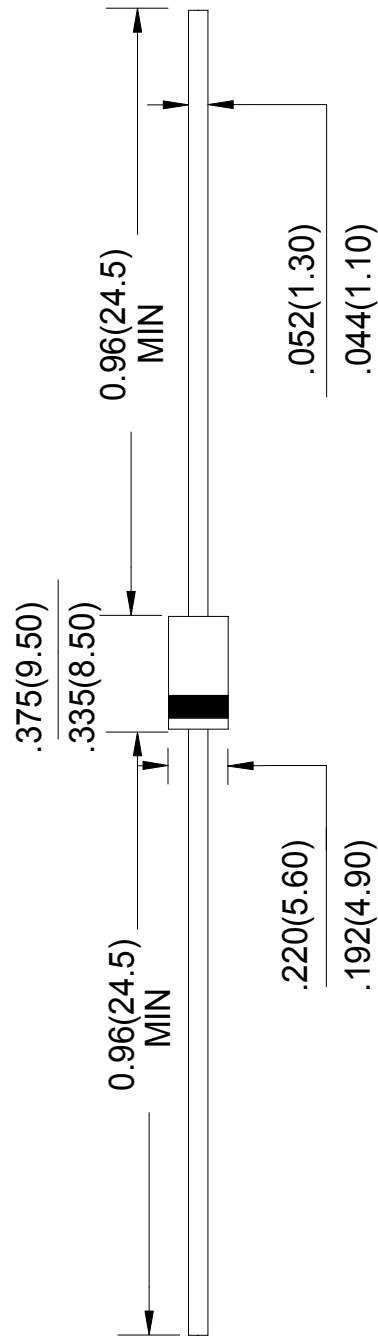


FIG.4: TYPICAL REVERSE CHARACTERISTICS



DO-27 Package Outline Dimensions

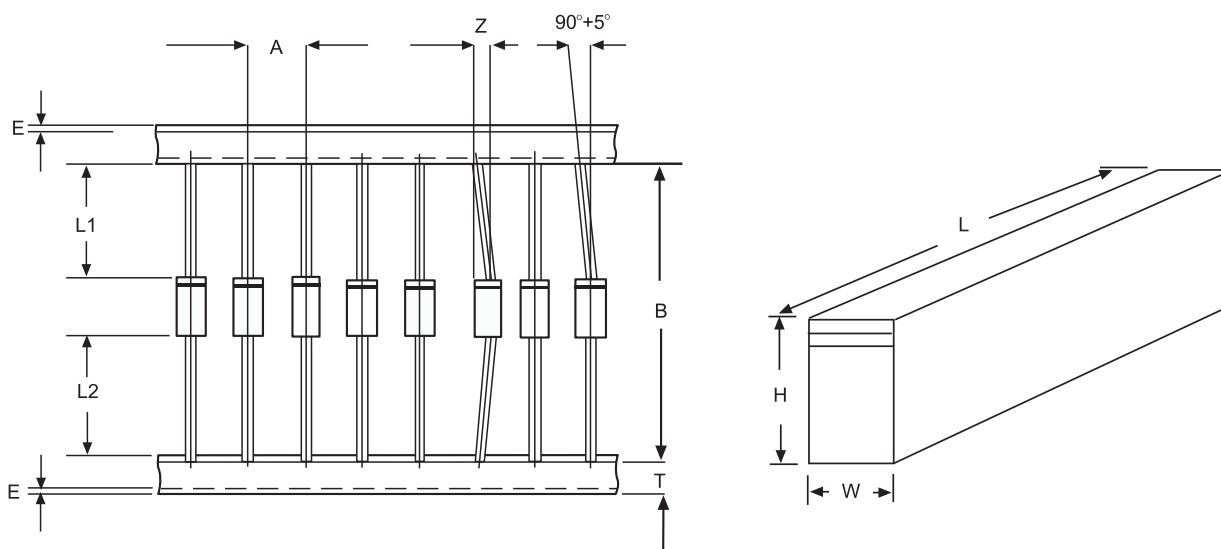


Unit: in inches (millimeters)

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
	$\pm 0.5\text{mm}(0.020\text{'})$	$+0.5\text{mm}(0.020\text{'})$	
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'')