



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

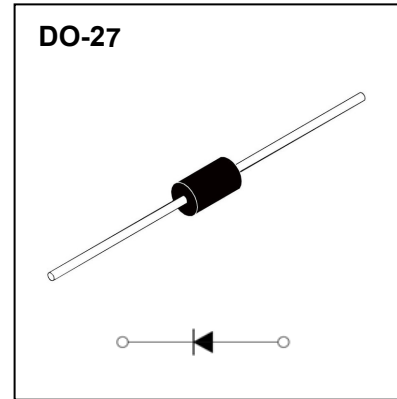
Applications

- 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, ($T_L=95^\circ\text{C}$)	3.0		
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	80		
Junction Temperature	T_J	$^\circ\text{C}$		-55 ~ +125		
Storage Temperature	T_{STG}	$^\circ\text{C}$		-55 ~ +150		

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

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

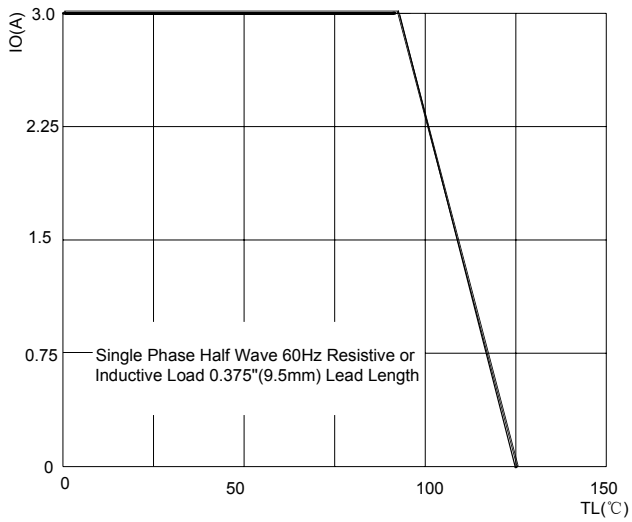


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

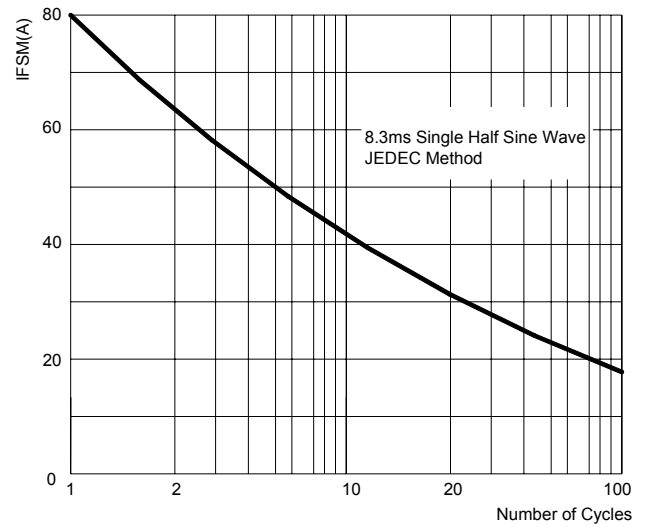


FIG.3: TYPICAL FORWARD CHARACTERISTICS

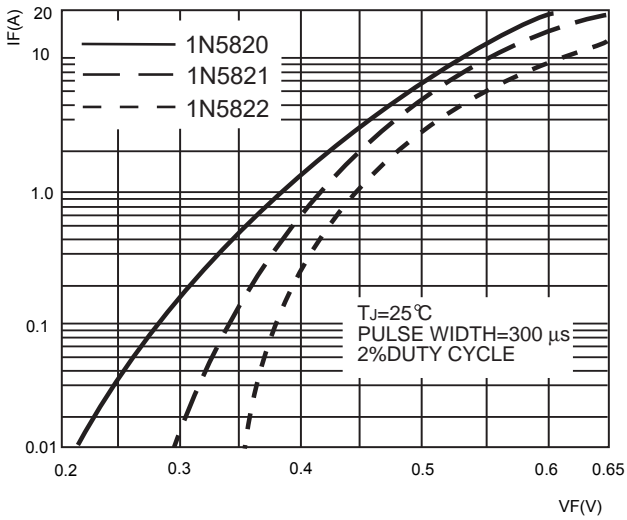
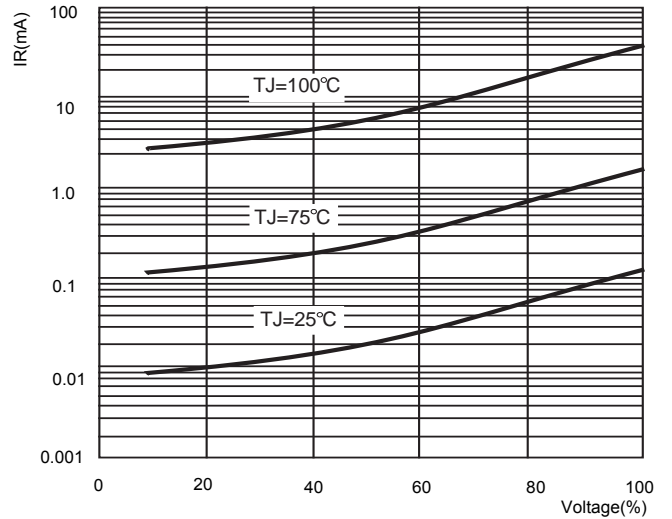
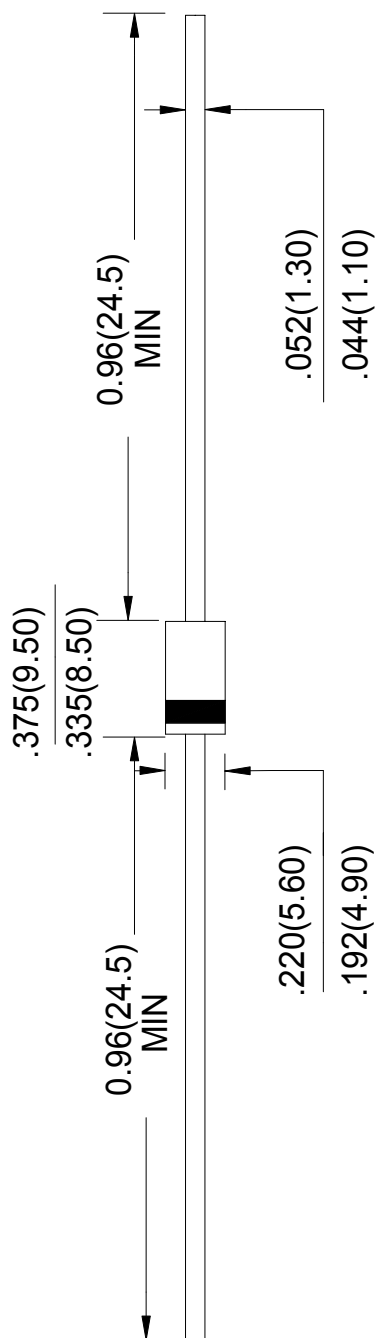


FIG.4: TYPICAL REVERSE CHARACTERISTICS



DO-27 Package Outline Dimensions



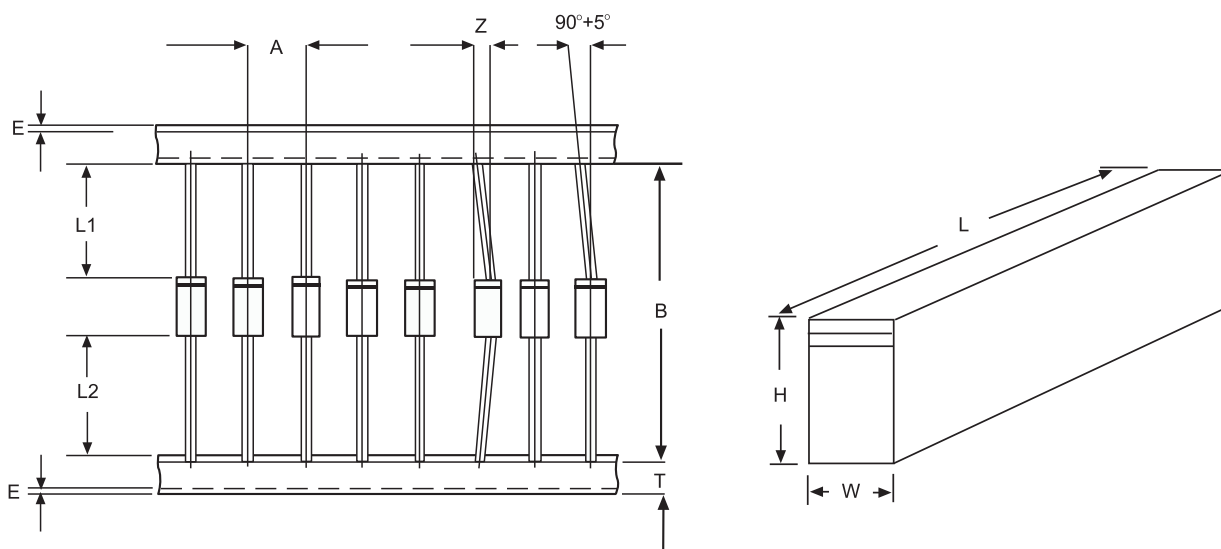
Unit: in inches (millimeters)

NOTICE
JSCJ reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSCJ does not assume any liability arising out of the application or use of any product described herein.

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'')