

## DO-41 Plastic-Encapsulate Diodes

### 1N5817 THRU 1N5819 Schottky Rectifier Diodes

#### Features

- $I_{F(AV)}$  1A
- $V_{RRM}$  20V-40 V
- High surge current capability
- Polarity: Color band denotes cathode

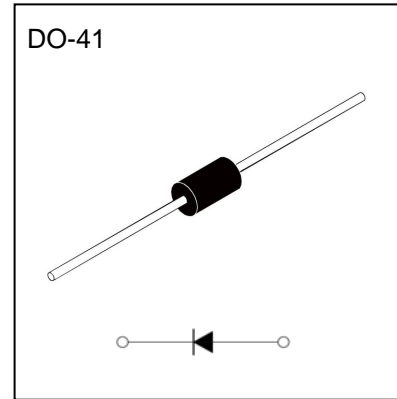
#### Applications

- Rectifier

#### Marking

- 1N581X

X : From 7 To 9



#### Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	1N58		
				17	18	19
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		20	30	40
Maximum RMS Voltage	$V_{RMS}$	V		14	21	28
Average Forward Current	$I_{F(AV)}$	A	60HZ Half-sine wave, Resistance load, ( $T_a=75^\circ\text{C}$ )	1.0		
Surge(Non-repetitive)Forward Current	$I_{FSM}$	A	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	30		
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		
				17	18	19
Peak Forward Voltage	$V_{FM}$	V	$I_{FM}=1.0\text{A}$	0.45	0.55	0.6
Peak Reverse Current	$I_{RRM1}$	mA	$V_{RM}=V_{RRM}$	$T_a=25^\circ\text{C}$		
	$I_{RRM2}$			$T_a=125^\circ\text{C}$		
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ\text{C/W}$	Between junction and ambient	50		
	$R_{\theta J-L}$		Between junction and lead	15		

#### Notes:

- 1) 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

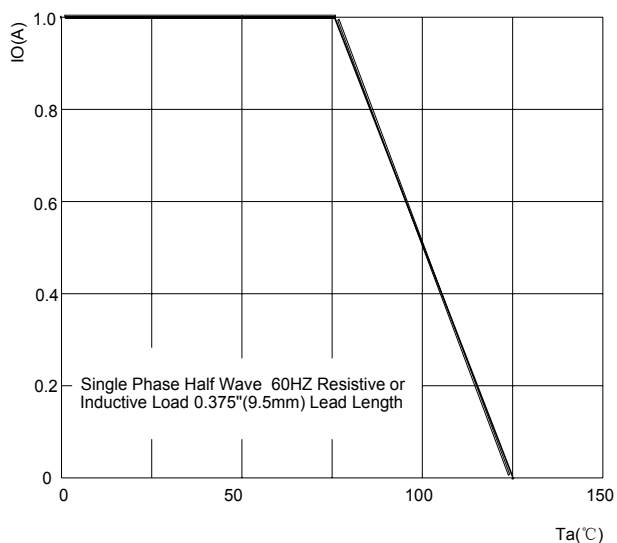


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

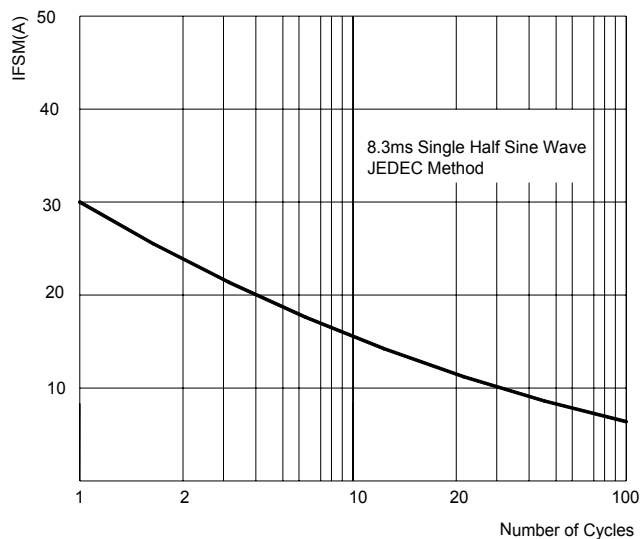


FIG.3: TYPICAL FORWARD CHARACTERISTICS

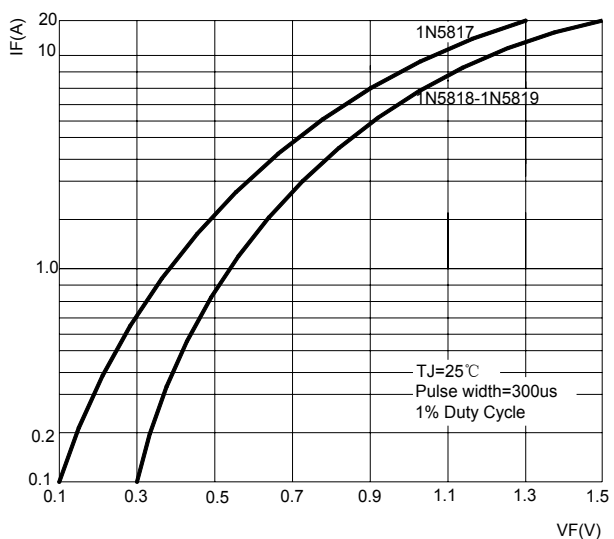
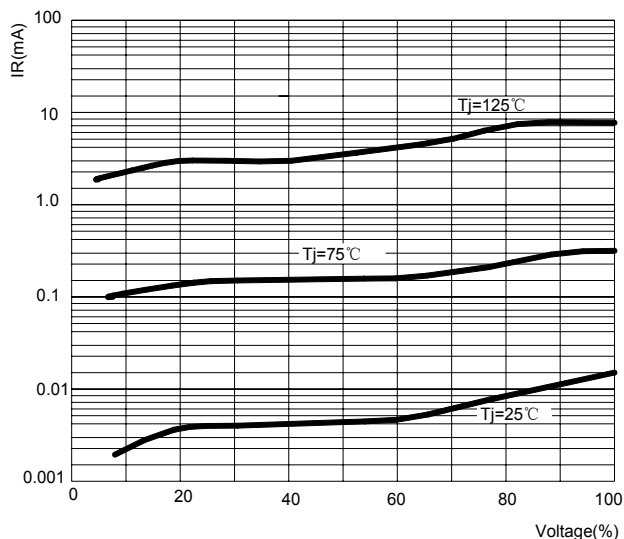
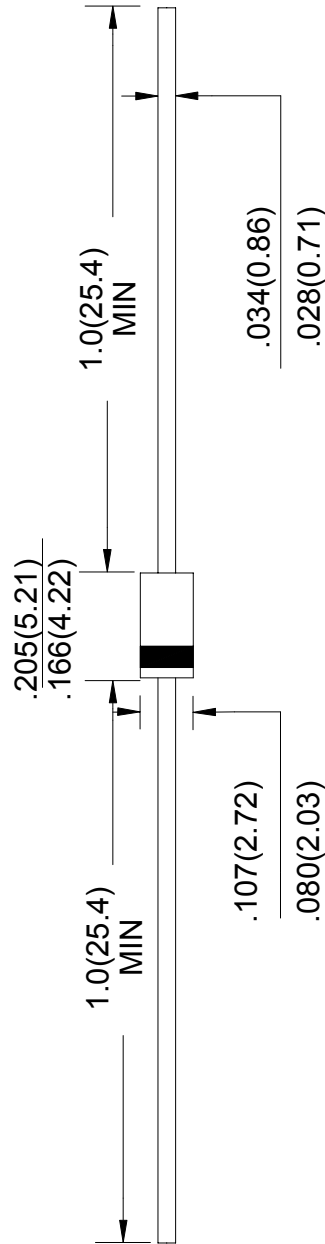


FIG.4: TYPICAL REVERSE CHARACTERISTICS





Unit: in inches (millimeters)

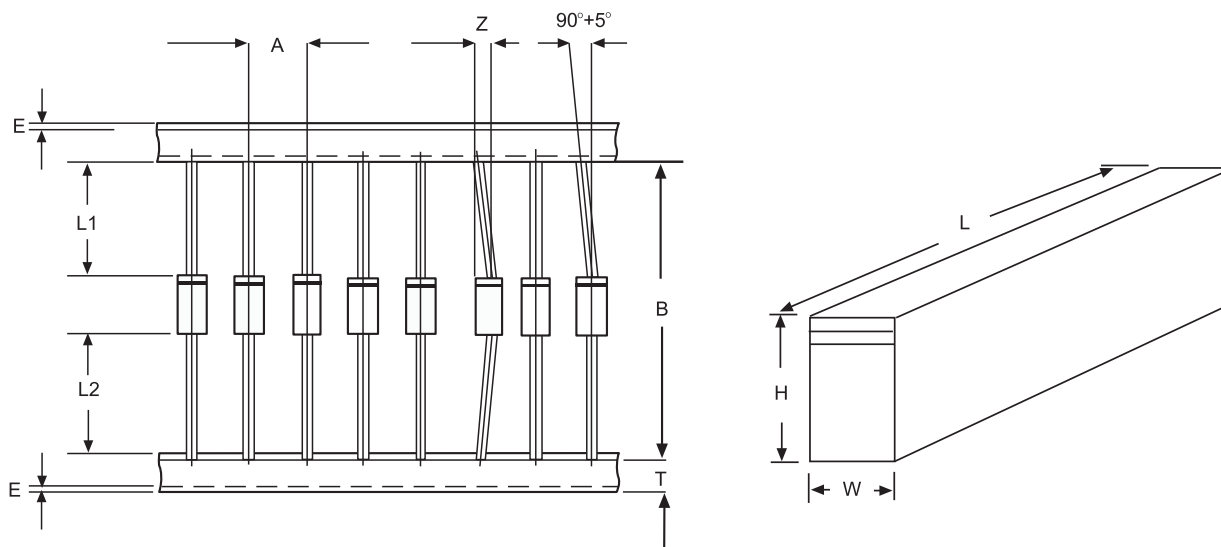
NOTICE

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
	$\pm 0.5\text{mm}(.020'')$	$+0.5\text{mm}(.020'')$	
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	$6.0\pm 0.4$	$0.236\pm 0.016$
Exposed adhesive	E	0.8max	0.032max
Body eccentricity	IL1-L2I	1.0max	0.040max
Box length	L	$255.0\pm 5.0$	$10.04\pm 0.197$
Box width	W	$78.0\pm 5.0$	$3.07\pm 0.197$
Box height	H	$150.0\pm 5.0$	$5.91\pm 0.197$

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