

1N5820 THRU 1N5822



Schottky Barrier Rectifier

Reverse Voltage: 20 to 40 Volts

Forward Current: 3.0 Ampere

RoHS Device

Halogen Free

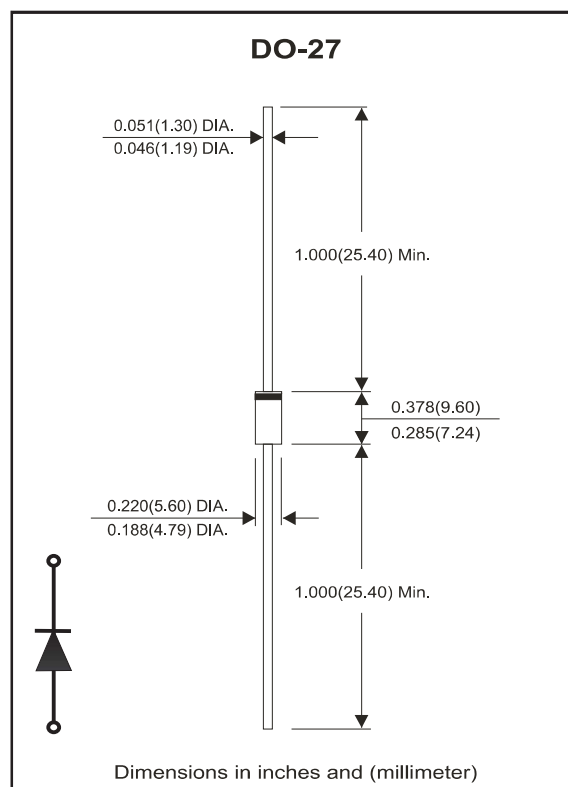


Features

- Fast switching.
- Low forward voltage, high current capability.
- Low power loss, high efficiency.
- High current surge capability.
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375"(9.5mm) lead length at 5lbs. (2.3kg) tension.

Mechanical data

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.042 ounces, 1.19 grams(approx.).



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load derate current by 20%.

Parameter		Symbol	1N5820	1N5821	1N5822	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	20	30	40	V
Maximum RMS voltage		V_{RMS}	14	21	28	V
Maximum DC blocking voltage		V_{DC}	20	30	40	V
Maximum average forward rectified current 0.375"(9.5mm) lead length @ $T_L=95^{\circ}C$		I_{AV}	3.0			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	80			A
Maximum forward voltage	3.0A 9.4A	V_F	0.475 0.850	0.500 0.900	0.525 0.950	V
Maximum reverse current at rated DC blocking voltage (Note 1)	$T_A=25^{\circ}C$ $T_A=100^{\circ}C$	I_R	2.0 20			mA
Typical junction capacitance (Note 2)		C_J	250			pF
Typical thermal resistance (Note 3)		$R_{\theta JA}$	40			$^{\circ}C/W$
Operating temperature range		T_J	-55 to +125			$^{\circ}C$
Storage temperature range		T_{STG}	-55 to +125			$^{\circ}C$

Company reserves the right to improve product design , functions and reliability without notice.

Rev:1.0

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Rating and Characteristic Curves

Fig.1 - Typical Forward Current Derating Curve

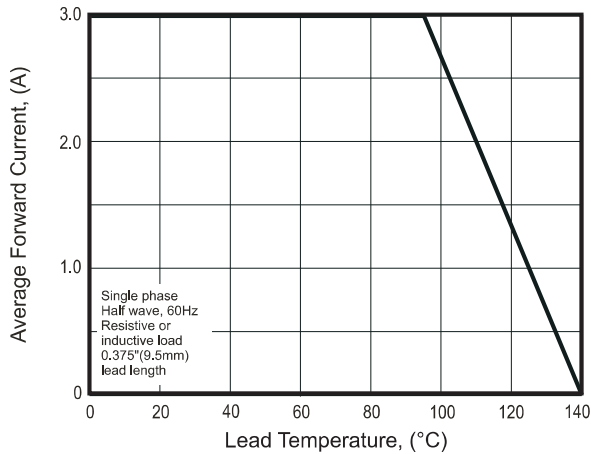


Fig.2 - Maximum Non-repetitive Peak Forward Surge Current

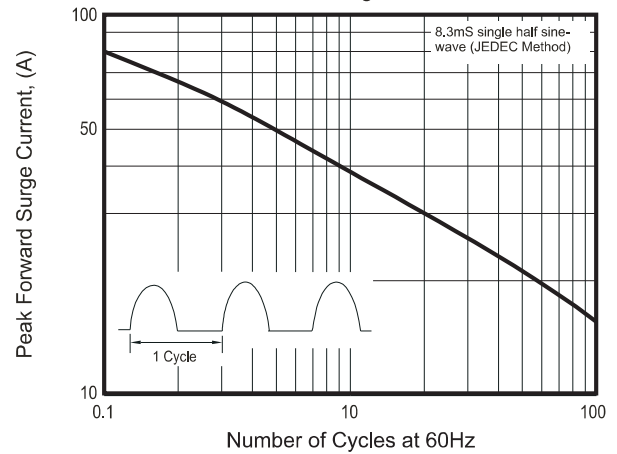


Fig.3 - Typical Instantaneous Forward Characteristics

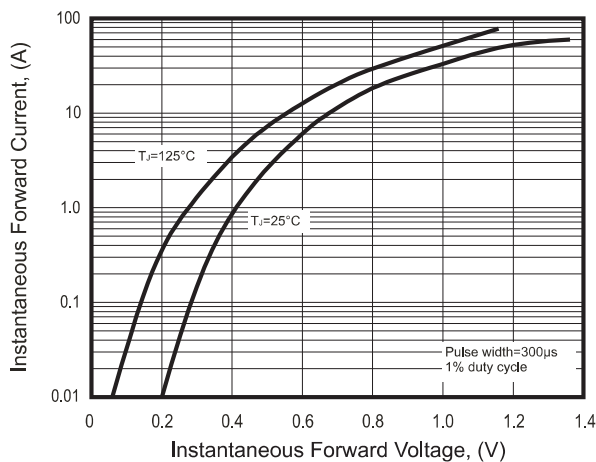


Fig.4 - Typical Reverse Characteristics

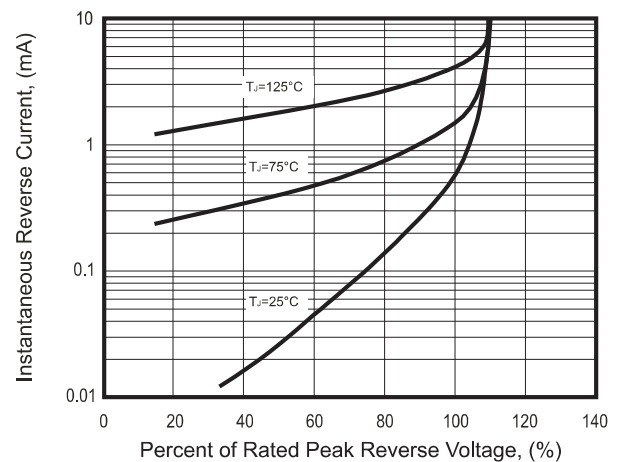
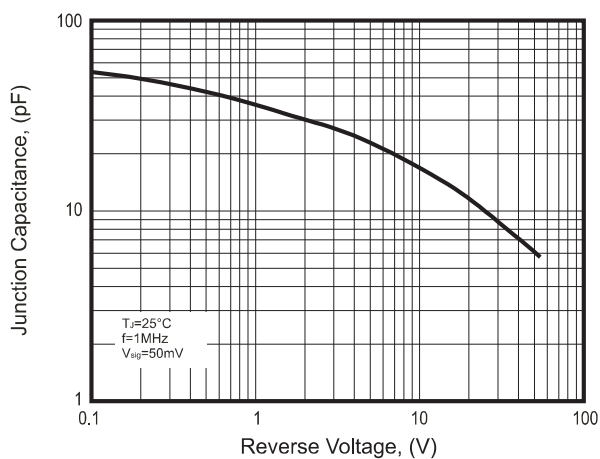


Fig.5 - Typical Junction Capacitance



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Marking Code

Part Number	Marking code
1N5820	1N5820
1N5821	1N5821
1N5822	1N5822

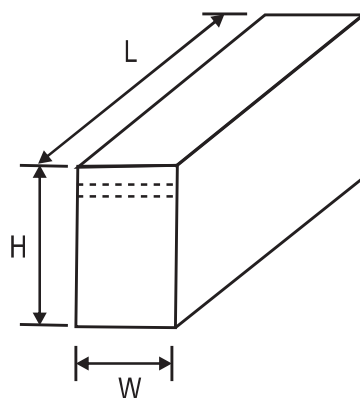
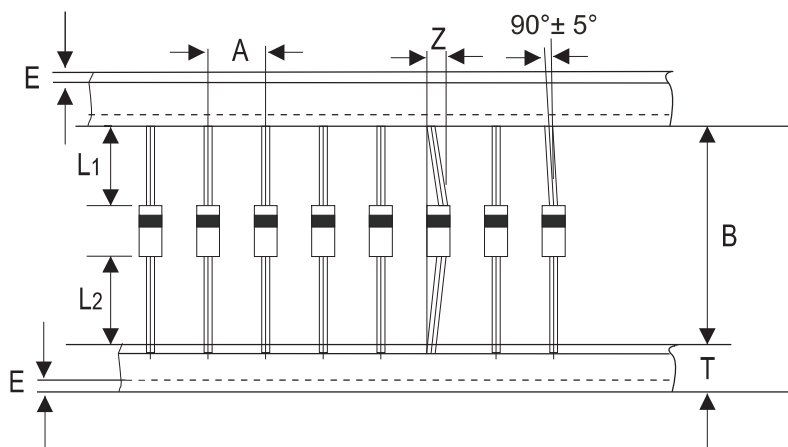


1N58XX = Product type marking code

Standard Packaging

Case Type	AMMO PACK	
	BOX (pcs)	CARTON (pcs)
DO-27	1,250	12,500

Taping Specification For Axial Lead Diodes



DO-27	SYMBOL	A	B	Z	T	E
	(mm)	10.00 ± 0.50	52.40 (max)	1.60 (max)	6.00 ± 0.40	3.00 (max)
	(inch)	0.394 ± 0.020	2.063 (max)	0.062 (max)	0.236 ± 0.016	0.118 (max)

DO-27	SYMBOL	L1-L2	L	W	H
	(mm)	1.00(max)	260 ± 5.00	75 ± 5.00	140 ± 5.00
	(inch)	0.039(max)	10.236 ± 0.197	2.953 ± 0.197	5.512 ± 0.197