



3.0Amp. Axial Leaded Schottky Barrier Diodes

1N582XLA Series

Features

- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Plastic material used carries Underwriters Laboratory Flammability Classification 94V-0
- Low leakage current
- High surge capability
- High temperature soldering: 250°C/10 seconds at terminals
- High reliability

Mechanical Data

- Case: DO-201AD molded plastic.
- Terminals: Axial leads, solderable per MIL-STD-202 method 208
- Polarity: Indicated by cathode band.
- Weight: 1.10 gram

Maximum Ratings and Electrical Characteristics

(Rating at 25°C ambient temperature unless otherwise noted. Single phase, half wave, 60Hz, resistive or inductive load.)

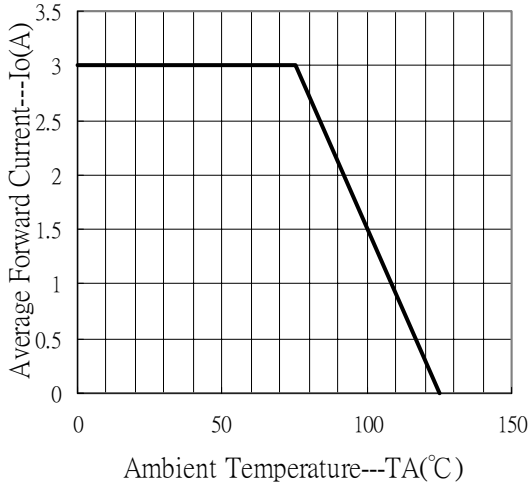
Parameter	Conditions	Symbol	Type			Units
			1N5820	1N5821	1N5822	
			min	typ	max	
Repetitive peak reverse voltage		V_{RRM}	20	30	40	V
Maximum RMS voltage		V_{RMS}	14	21	28	V
Maximum DC blocking voltage		V_R	20	30	40	V
Maximum instantaneous forward voltage	$I_F=3A$ (Note 1)	V_F	0.475	0.500	0.525	V
Maximum average forward rectified current		I_O	3			A
Peak forward surge current	8.3ms single half sine wave superimposed on rated load(JEDEC method)	I_{FSM}	80			A
Maximum DC reverse current	$V_R=V_{RRM}, T_A=25^\circ C$ (Note 1)	I_R	2			mA
	$V_R=V_{RRM}, T_A=125^\circ C$ (Note 1)		20			mA
Maximum thermal resistance	Junction to ambient(Note 2)	$R_{th,JA}$	40			°C/w
Diode junction capacitance	$f=1MHz$ and applied 4V reverse voltage	C_J	250			pF
Storage temperature		T_{stg}	-65~+125			°C
Operating temperature		T_J	-65~+125			°C

Notes: 1.Pulse test, pulse width=300 μ sec, 2% duty cycle

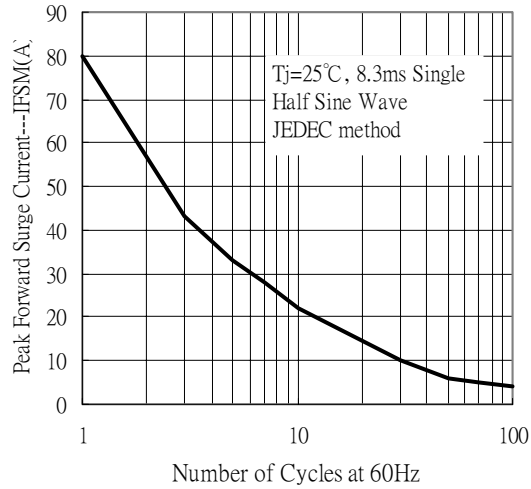


Characteristic Curves

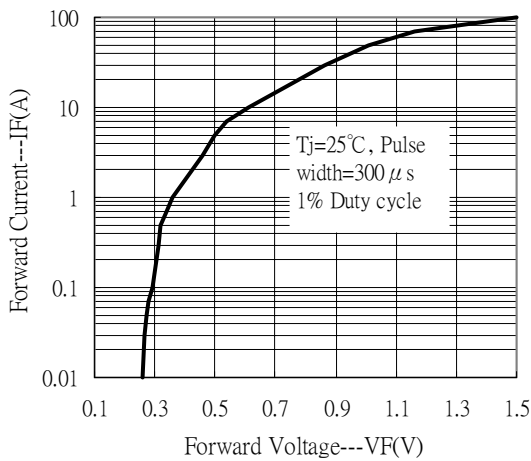
Forward Current Derating Curve



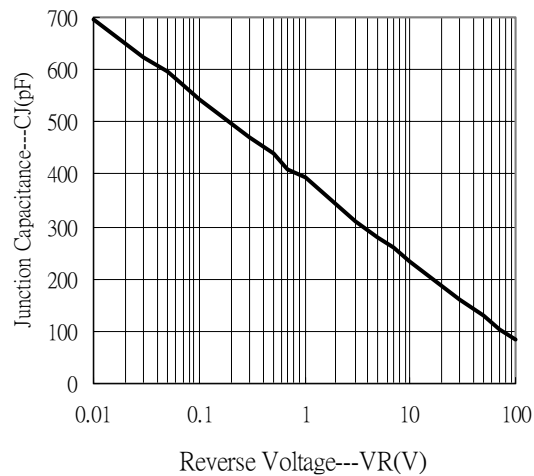
Maximum Non-Repetitive Forward Surge Current



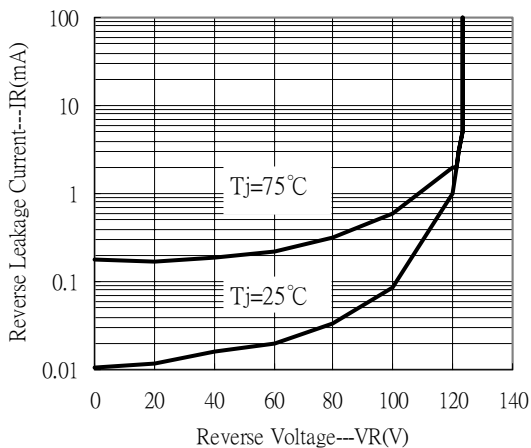
Forward Current vs Forward Voltage



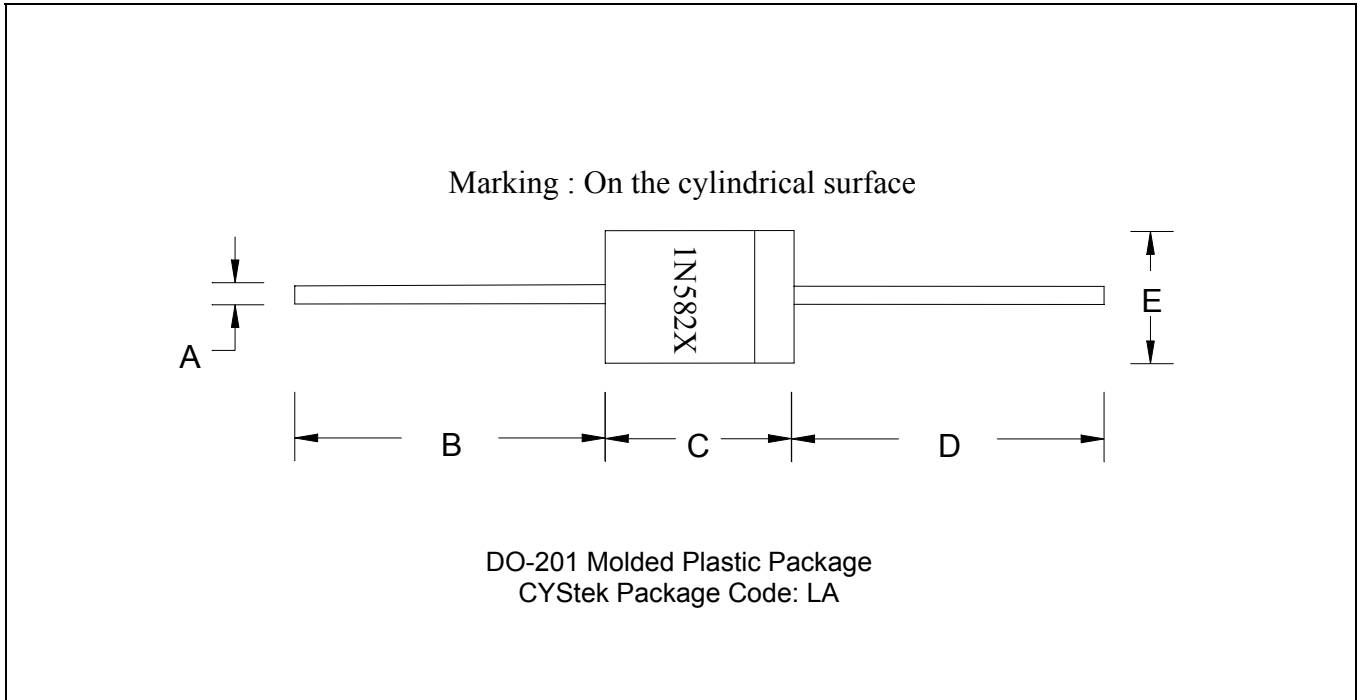
Junction Capacitance vs Reverse Voltage



Reverse Leakage Current vs Reverse Voltage



DO-201 Dimension



*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.0472	0.0512	1.20	1.30	D	1.0000	-	25.40	-
B	1.0000	-	25.40	-	E	0.1890	0.2087	4.80	5.30
C	0.2835	0.3740	7.20	9.50					

Notes : 1.Controlling dimension : millimeters.
 2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 3.If there is any question with packing specification or packing method, please contact your local CYStek sales office.

Material :

- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed.
- Mold Compound : Epoxy resin family, flammability solid burning class: UL94V-0

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