



### 3.0Amp Silicon Rectifiers

# 1N540XLA Series

## Features

- Low forward voltage drop.
- High reliability
- High current capability
- High surge current capability

## Mechanical Data

- Case : Molded plastic DO-201AD
- Epoxy : UL94V-0 rate flame retardant
- Terminals: Solderable per MIL-STD-202 method 208 guaranteed
- Polarity: Color band denotes cathode end.
- Mounting Position : Any.
- Weight: 1.1 gram

## Maximum Ratings and Electrical Characteristics

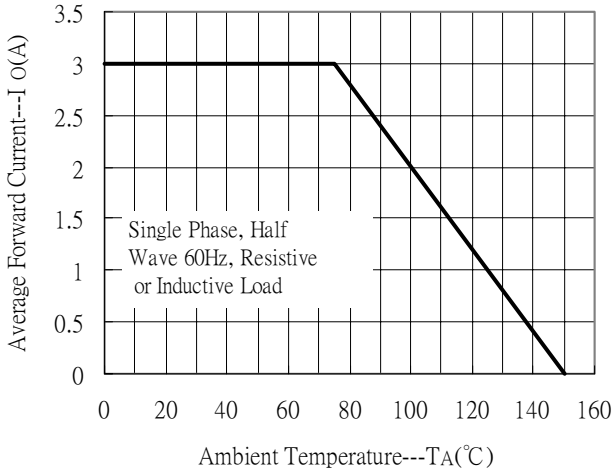
(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%)

Parameter	Symbol	Type							Units
		1N5400	1N5401	1N5402	1N5404	1N5406	1N5407	1N5408	
Repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V <sub>R</sub>	50	100	200	400	600	800	1000	V
Maximum instantaneous forward voltage, I <sub>F</sub> =3A	V <sub>F</sub>	0.95							V
Maximum average forward rectified current, 0.375"(9.5mm) lead length at T <sub>A</sub> =75°C	I <sub>F(AV)</sub>	3							A
Peak forward surge current @8.3ms single half sine wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200							A
Maximum DC reverse current, at rated DC blocking voltage T <sub>J</sub> =25°C T <sub>J</sub> =100°C	I <sub>R</sub>	5 50							μA μA
Typical thermal resistance(Note 1)	R <sub>th, JA</sub>	30							°C/W
Typical junction capacitance (Note 2)	C <sub>J</sub>	40							pF
Storage temperature	T <sub>stg</sub>	-65 ~ +175							°C
Operating temperature	T <sub>J</sub>	-65 ~ +175							°C

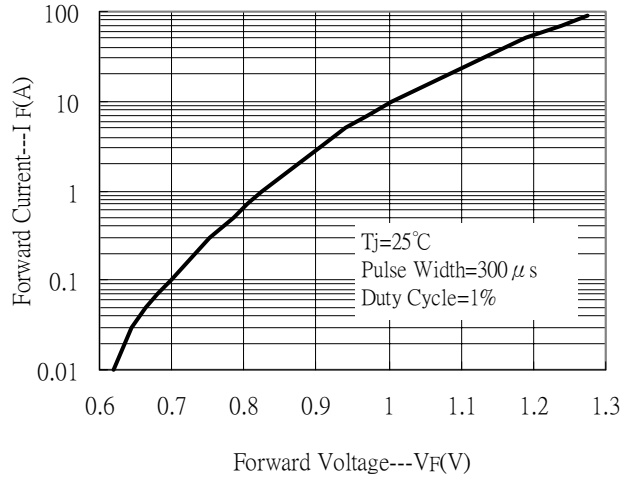
Note : 1. Thermal resistance from junction to ambient, 0.375"(9.5mm) lead length.  
2. Measured at 1MHz and applied reverse voltage of 4VDC.

**Characteristic Curves**

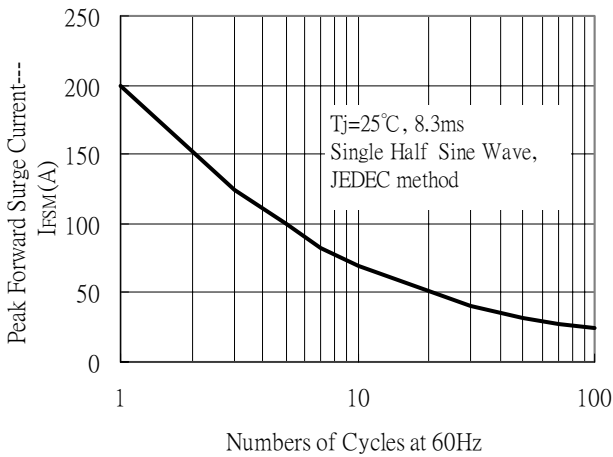
Forward Current Derating Curve



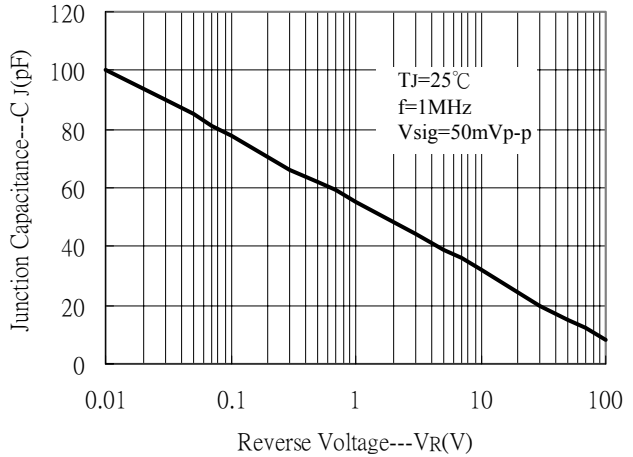
Forward Current vs Forward Voltage



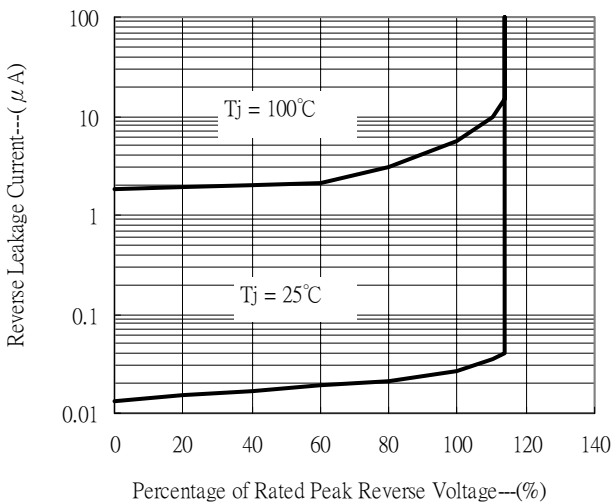
Maximum Non-Repetitive Forward Surge Current



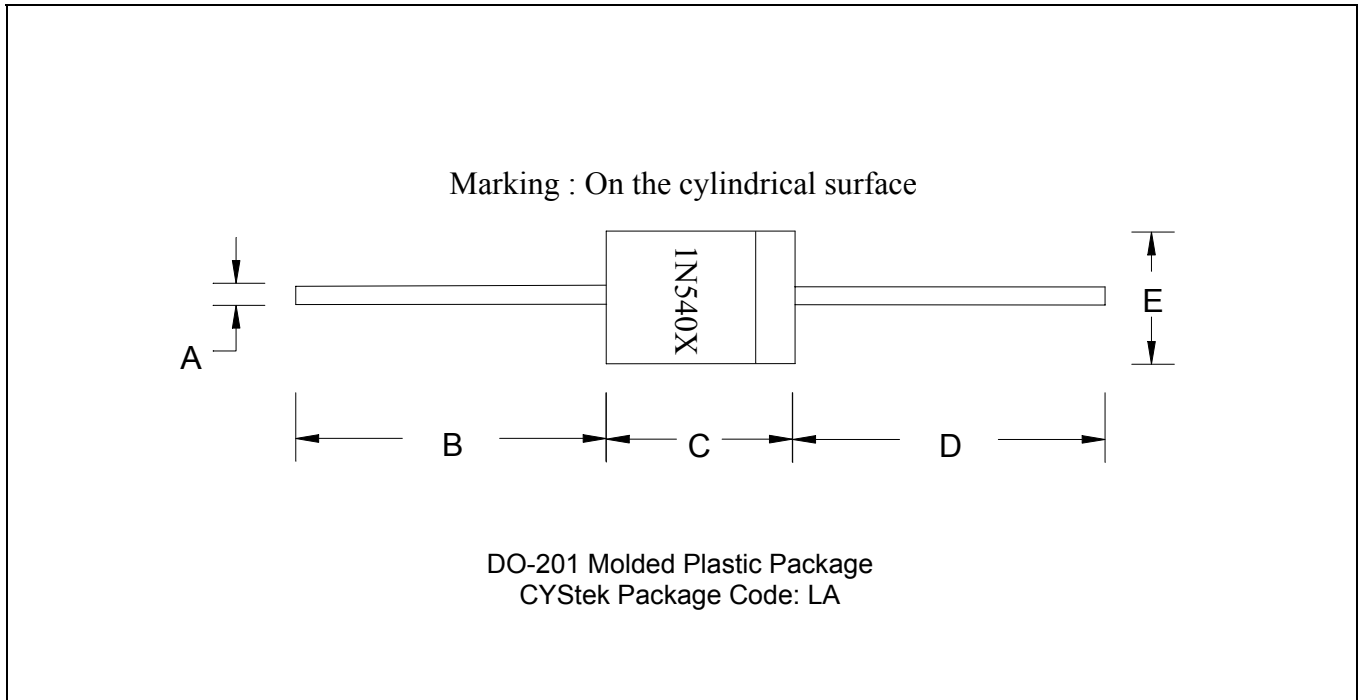
Junction Capacitance vs Reverse Voltage



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	0.0520	1.20	1.30	D	1.0000	-	25.40	-
B	1.0000	-	25.40	-	E	0.1890	0.2200	4.80	5.60
C	0.2835	0.3750	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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