1N400XLB Series

1.0Amp. Glass Passivated Silicon Rectifiers

Features

- Low forward voltage drop and low leakage current
- High current capability
- High surge current capability
- Plastic material used carries UL flammability classification 94V-0 utilizing flame retardant epoxy molding compound.
- High temperature soldering: 250°C/10 seconds at terminals
- High reliability

Mechanical Data

- Case: DO-41 Molded Plastic.
- Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode end.
- Weight: 0.34 grams

Maximum Ratings and Electrical Characteristics

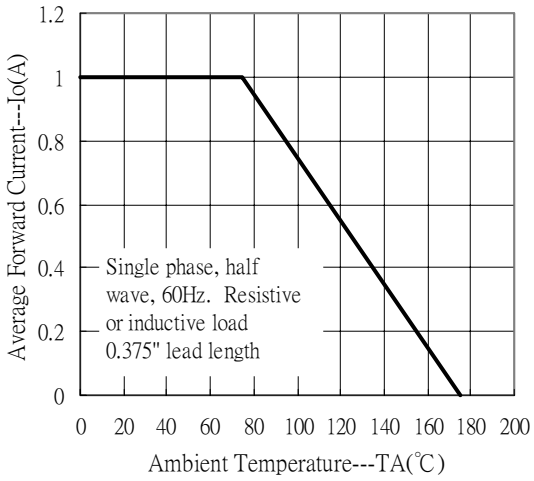
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Type Number	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Units
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375”(9.5mm) lead length at TA=75°C	1							A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load(JEDEC method)	30							A
Maximum Instantaneous Forward Voltage @ 1.0A	1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	5 (@Ta=25°C) 50 (@Ta=125°C)							μA
Typical Junction Capacitance (Note 1)	15							pF
Typical thermal resistance(Note 2)	50							℃/W
Operating Temperature Range Tj	-65 to +175							°C
Storage Temperature Range Tstg	-65 to +175							°C

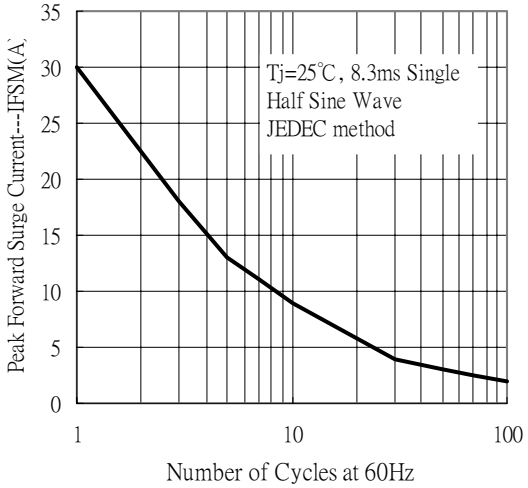
Notes: 1. Measured at 1 MHz and applied reverse voltage of 4.0Volts
2.Thermal resistance from junction to ambient .375”(0.95mm) lead length.

Characteristic Curves

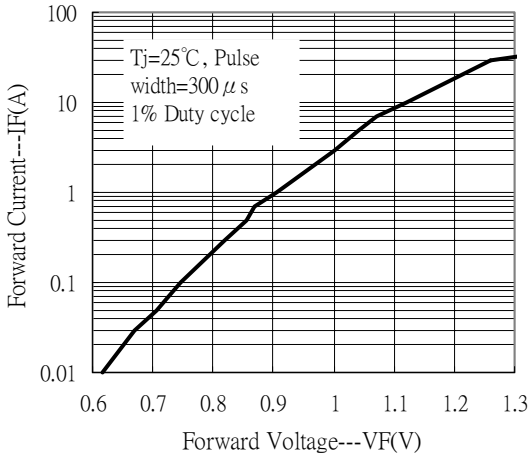
Forward Current Derating Curve



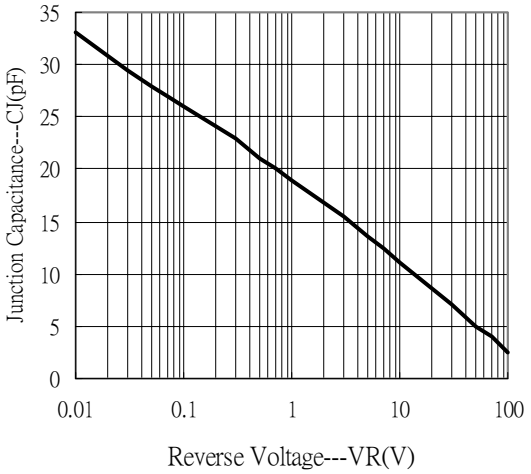
Maximum Non-Repetitive Forward Surge Current



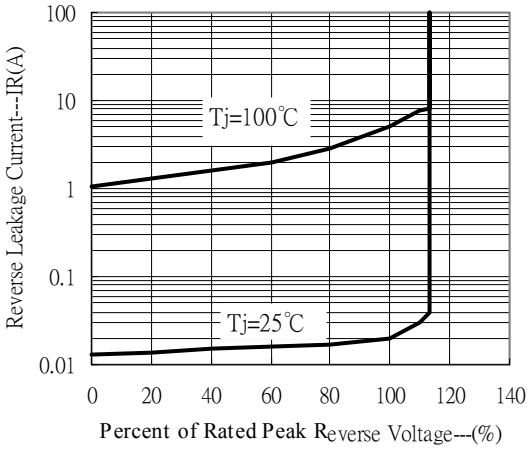
Forward Current vs Forward Voltage



Junction Capacitance vs Reverse Voltage

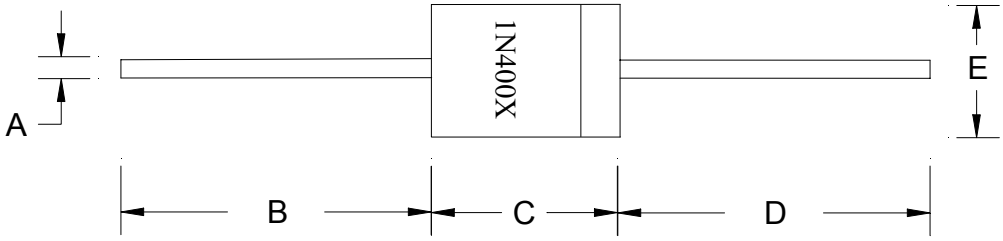


Reverse Leakage Current vs Reverse Voltage



DO-41 Dimension

Marking: On the cylindrical surface



DO-41 Molded Plastic Package
CYStek Package Code : LB

*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.0280	0.0340	0.71	0.86	D	1.0000	-	25.40	-
B	1.0000	-	25.40	-	E	0.0800	0.1070	2.00	2.70
C	0.1600	0.2050	4.10	5.20					

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 : 42 Alloy ; solder plating
- Mold Compound : Epoxy resin family, flammability solid burning class:UL94V-0

Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of CYStek.
- CYStek reserves the right to make changes to its products without notice.
- CYStek ***semiconductor products are not warranted to be suitable for use in Life-Support Applications, or systems.***
- CYStek assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.