



1.0Amp Silicon Schottky Barrier Rectifiers

# 1N581XLB Series

## Features

- Low forward voltage drop
- High current capability
- High surge current capability
- High reliability
- Epitaxial construction

## Mechanical Data

- Case: DO-41 Molded Plastic.
- Terminals: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end.
- Epoxy: UL 94V-0 rate flame retardant
- Mounting position: Any
- Weight: 0.34 grams

## Maximum Ratings and Electrical Characteristics

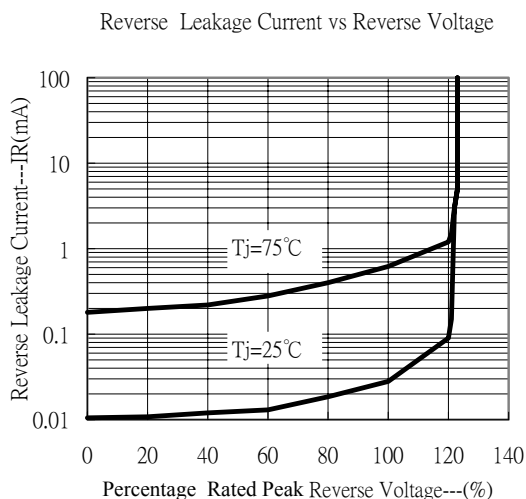
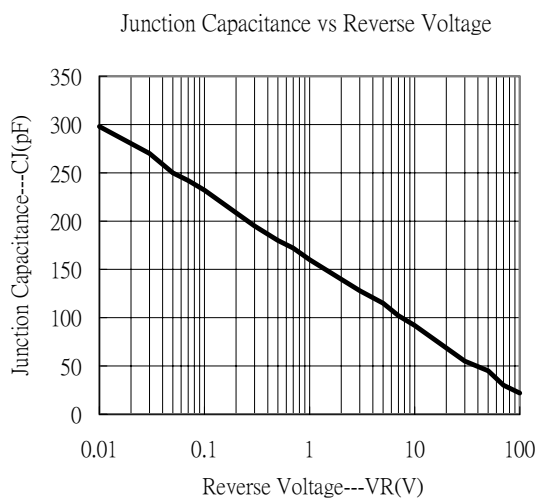
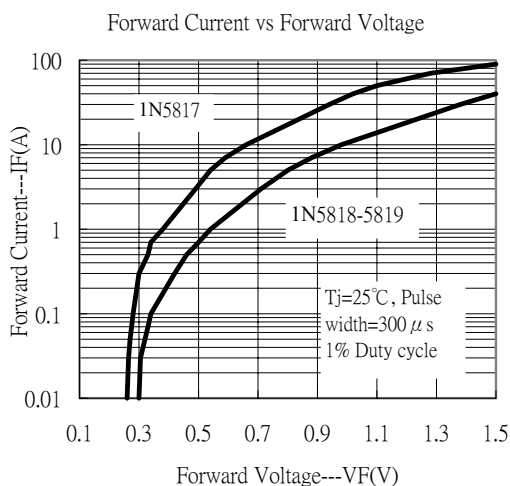
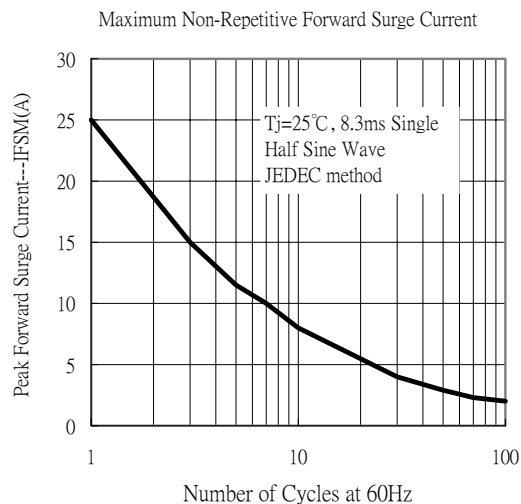
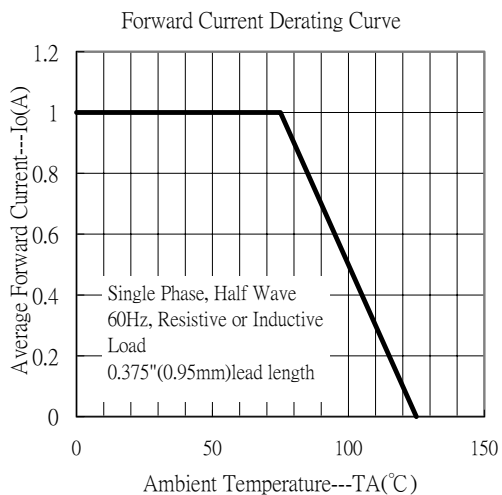
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Type Number   | 1N5817                         | 1N5818 | 1N5819 | Units |
|---|--------------------------------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage  | 20                             | 30     | 40     | V     |
| Maximum RMS Voltage   | 14                             | 21     | 28     | V     |
| Maximum DC Blocking Voltage   | 20                             | 30     | 40     | V     |
| Maximum Average Forward Rectified Current<br>.375"(9.5mm) lead length at Ta=90°C                    | 1                              |        |        | A     |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave<br>Superimposed on Rated Load(JEDEC method) | 25                             |        |        | A     |
| Maximum Instantaneous Forward Voltage @ 1.0A  | 0.45                           | 0.55   | 0.6    | V     |
| Maximum DC Reverse Current at Rated DC<br>Blocking Voltage  | 1 (@Ta=25°C)<br>10 (@Ta=100°C) |        |        | mA    |
| Typical Junction Capacitance (Note 1)   | 110                            |        |        | pF    |
| Typical thermal resistance(Note 2)  | 80                             |        |        | °C/W  |
| Operating Temperature Range Tj  | -65 to +125                    |        |        | °C    |
| Storage Temperature Range Tstg  | -65 to +150                    |        |        | °C    |

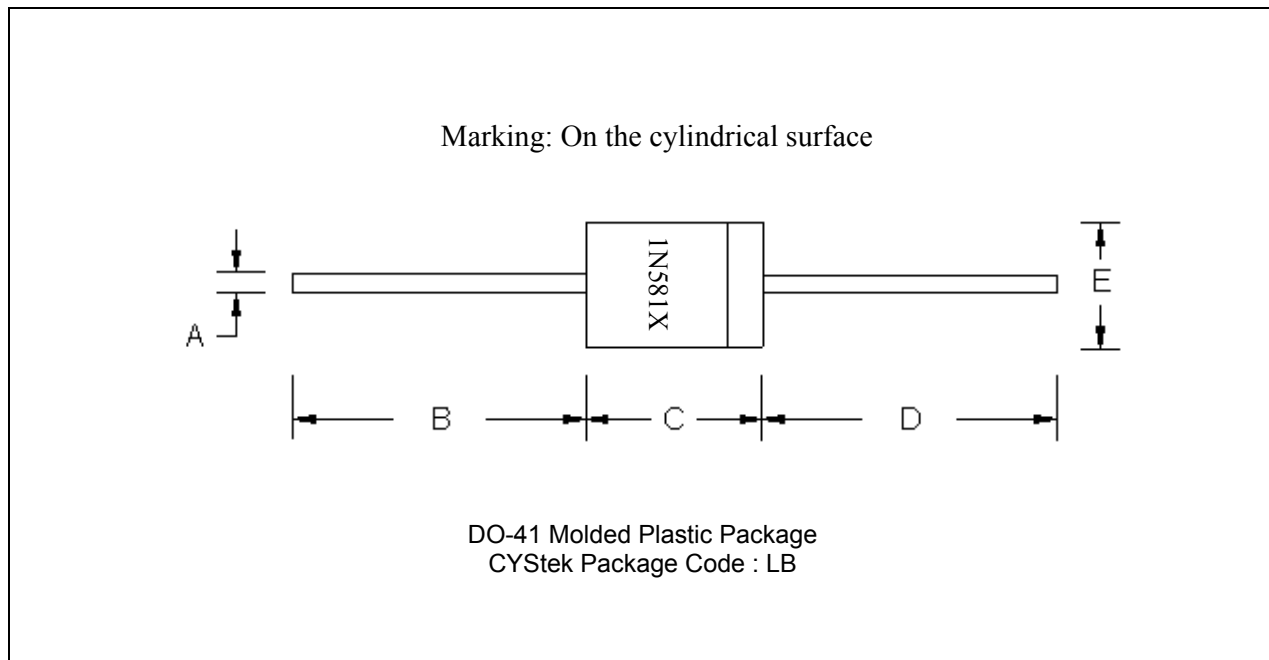
Notes : 1. Measured at 1 MHz and applied reverse voltage of 4.0Volts

2. Thermal resistance from junction to ambient, vertical PCB mounting, 0.5"(12.7mm) lead length.

## Characteristic Curves



**DO-41 Dimension**



\*: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

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