



CFR10XLB Series

1.0Amp. Fast Recovery 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.
- Mounting Position: Any
- Weight: 0.34 grams

Maximum Ratings and Electrical Characteristics

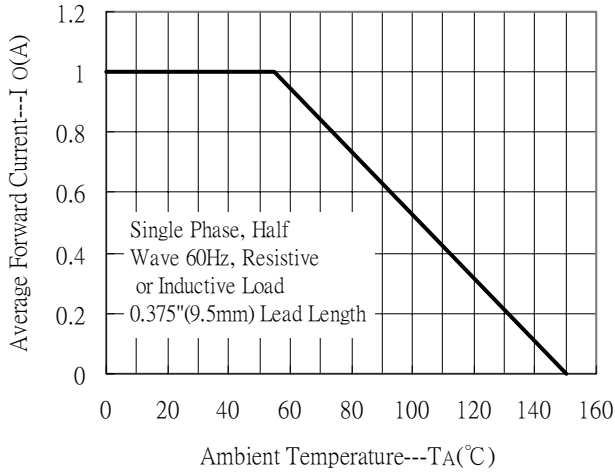
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Type Number | CFR101 | CFR102 | CFR103 | CFR104 | CFR105 | CFR106 | CFR107 | 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 T _A =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 | 1.3 | | | | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | 5 (@T _a =25°C) 100 (@T _a =100°C) | | | | | | | μA |
| Typical Junction Capacitance (Note 1) | 15 | | | | | | | pF |
| Maximum Reverse Recovery Time(Note 2) | 150 | | | | 250 | 500 | | ns |
| Operating Temperature Range T _j | -65 to +150 | | | | | | | °C |
| Storage Temperature Range T _{stg} | -65 to +150 | | | | | | | °C |

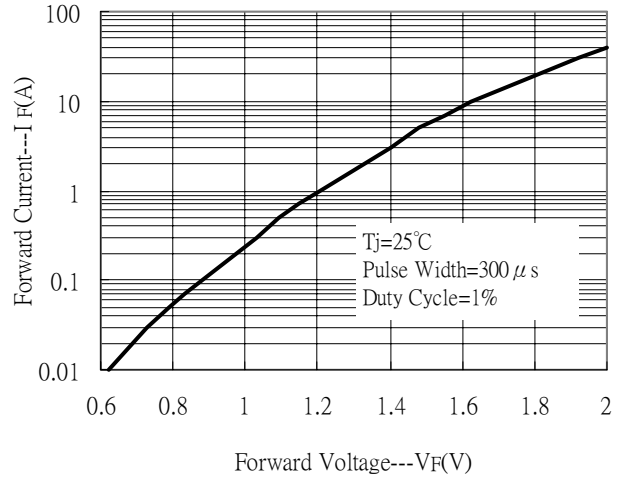
Notes : 1. Measured at 1 MHz and applied reverse voltage of 4.0Volts
2. Test Condition : I_F=0.5A, I_R=1A, I_{RR}=0.25A.

Characteristic Curves

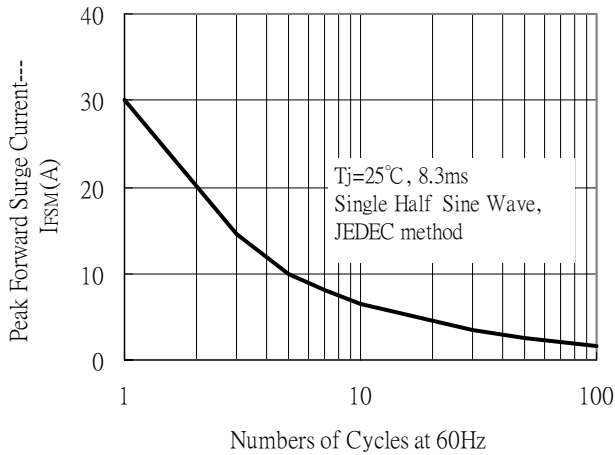
Forward Current Derating Curve



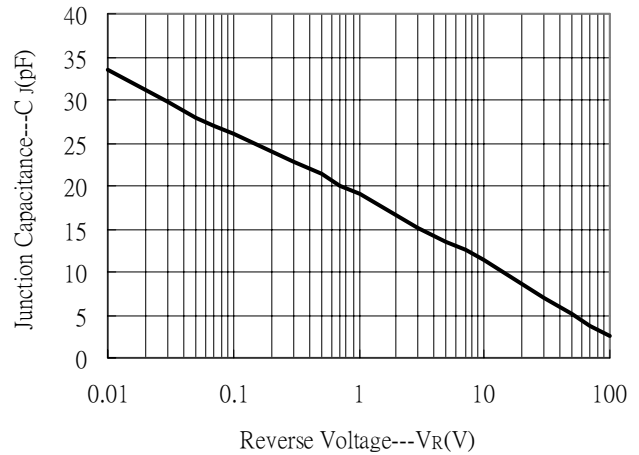
Forward Current vs Forward Voltage



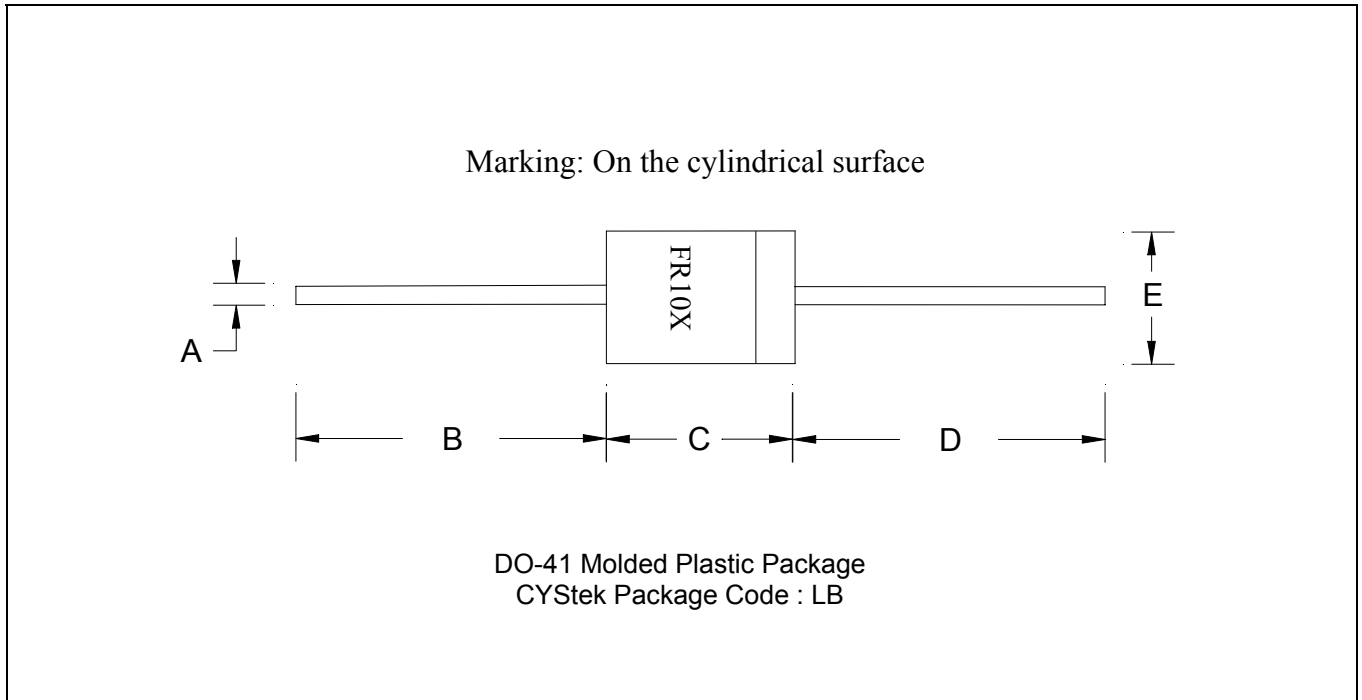
Maximum Non-Repetitive Forward Surge Current



Junction Capacitance vs Reverse Voltage



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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