

Glass Passivated Super Fast Recovery Rectifier

COMCHIP
SMD DIODE SPECIALIST

SF10C01CF-G THRU SF10C06CF-G

Voltage Range 50 to 600 V

Current 10.0 Ampere

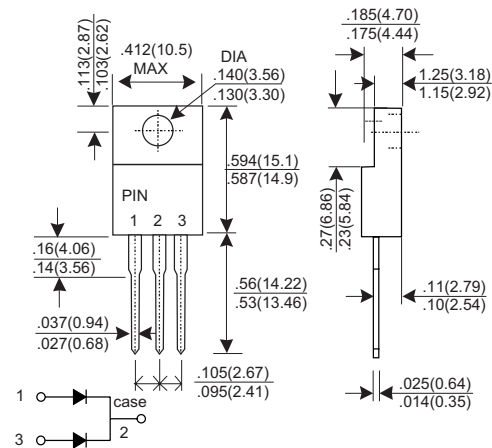
Features

- * Fast switching for high efficiency
- * Low forward voltage drop
- * High current capability
- * Low reverse leakage current
- * High surge current capability

Mechanical Data

- * Case: Molded plastic ITO-220AB
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solderable per MIL-STD-202 method 208
- * Polarity: Color band denotes cathode
- * Mounting position: Any
- * Weight: 1.81 grams

ITO-220AB



Dimensions in inches and (millimeters)

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%.

| | SYMBOL | SF 10C01CF -G | SF 10C02CF -G | SF 10C03CF -G | SF 10C04CF -G | SF 10C05CF -G | SF 10C06CF -G | UNIT |
|---|----------|---------------|---------------|---------------|---------------|---------------|---------------|----------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 50 | 100 | 200 | 300 | 400 | 600 | V |
| Maximum RMS Voltage | VRMS | 35 | 70 | 140 | 210 | 280 | 420 | V |
| Maximum DC Blocking Voltage | VDC | 50 | 100 | 200 | 300 | 400 | 600 | V |
| Maximum Average Forward Rectified Current Tc=100°C | IF(AV) | 10.0 | | | | | | A |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | IFSM | 100 | | | | | | A |
| Maximum Instantaneous Forward Voltage @ 5.0 A | VF | 0.95 | | | 1.3 | | 1.5 | V |
| Maximum DC Reverse Current @TJ=25°C At Rated DC Blocking Voltage @TJ=125°C | IR | 10.0 | | | 250 | | | uA uA |
| Maximum Reverse Recovery Time (Note 1) | Trr | 35 | | | 50 | | | nS |
| Typical junction Capacitance (Note 2) | CJ | 65 | | | | | | pF |
| Typical Thermal Resistance (Note 3) | RθJC | 2.2 | | | | | | °CW |
| Operating Junction and Storage Temperature Range | TJ, TSTG | -55 to +150 | | | | | | °C |

NOTES : (1) Reverse recovery test conditions $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$.
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
(3) Thermal Resistance junction to case.

RATINGS AND CHARACTERISTIC CURVES SF10C01CF-G THRU SF10C06CF-G

FIG.1 - FORWARD CURRENT DERATING CURVE

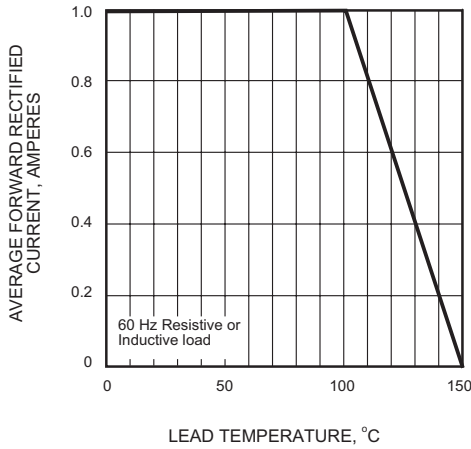


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

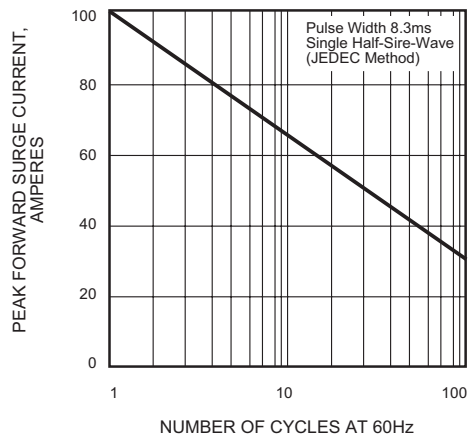


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

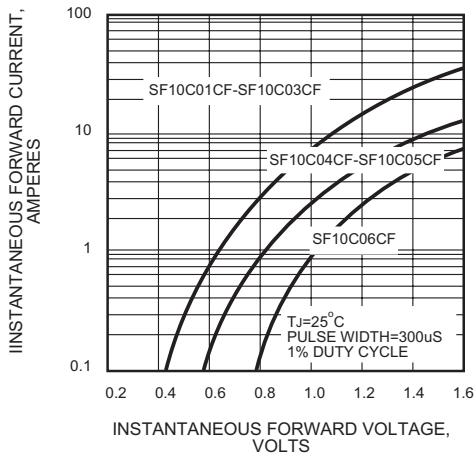


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

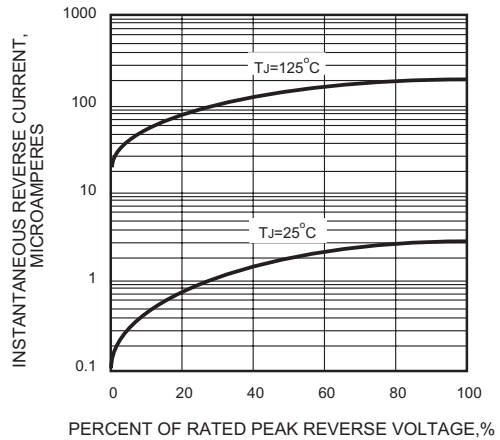


FIG.5 - TYPICAL JUNCTION CAPACITANCE

