

RoHS Compliant Product

A suffix of "-C" specifies and halogen free

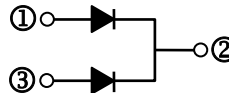
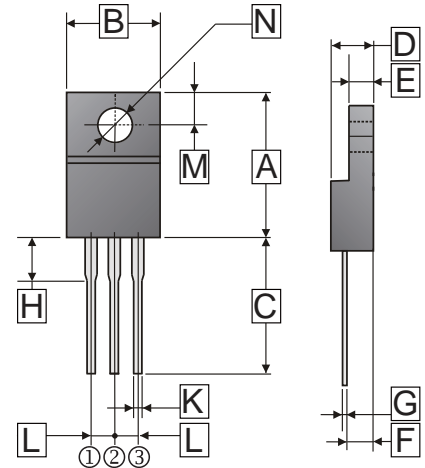
FEATURES

- 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-220Y
- Epoxy : UL 94V-0 rate flame retardant
- Terminals : Solderable per MIL-STD-202 method 208 guaranteed
- Mounting position : Any
- Polarity : Color band denotes cathode
- Weight : 1.73 grams

ITO-220Y



| REF. | Millimeter | | REF. | Millimeter | |
|------|------------|-------|------|------------|-------|
| | Min. | Max. | | Min. | Max. |
| A | 14.80 | 15.20 | G | 0.30 | 0.70 |
| B | 9.50 | 10.50 | H | 3.50 | 3.41 |
| C | 12.40 | 14.30 | K | 0.50 | 0.65 |
| D | 4.30 | 4.70 | L | 2.35 | 2.70 |
| E | 2.80 | 3.20 | M | 2.50 | 2.80 |
| F | 2.40 | 2.90 | N | φ 3.2 | φ 3.6 |

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%.

| Parameters | Symbol | Part Number | | | | UNIT |
|--|-----------------|--------------|--------------|--------------|--------------|-----------------------------|
| | | SFG10SD 200F | SFG10SD 300F | SFG10SD 400F | SFG10SD 600F | |
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 200 | 300 | 400 | 600 | V |
| Maximum RMS Voltage | V_{RMS} | 140 | 210 | 280 | 420 | V |
| Maximum DC Blocking Voltage | V_{DC} | 200 | 300 | 400 | 600 | V |
| Maximum Average Forward Rectified Current $T_C=100^\circ\text{C}$ | $I_{F(AV)}$ | 10 | | | | A |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 100 | | | | A |
| Max. Instantaneous Forward Voltage @ 5.0A | V_F | 0.95 | 1.3 | | 1.7 | V |
| Max. DC Reverse Current @ $T_J=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$ | I_R | 10 250 | | | | μA |
| Max. Reverse Recovery Time (Note 1) | T_{RR} | 35 | | | | nS |
| Typical Junction Capacitance (Note 2) | C_J | 65 | | | | pF |
| Typical Thermal Resistance (Note 3) | $R_{\theta JC}$ | 2.2 | | | | $^\circ\text{C} / \text{W}$ |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55 ~ +150 | | | | $^\circ\text{C}$ |

NOTES :

- (1) Reverse recovery test conditions $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$.
- (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

FIG.1 - FORWARD CURRENT DERATING CURVE

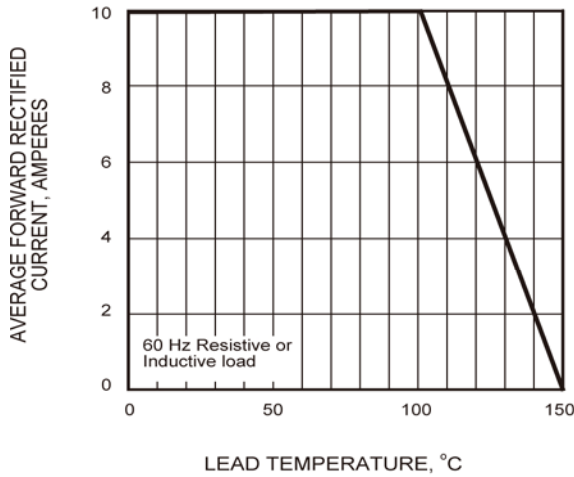


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

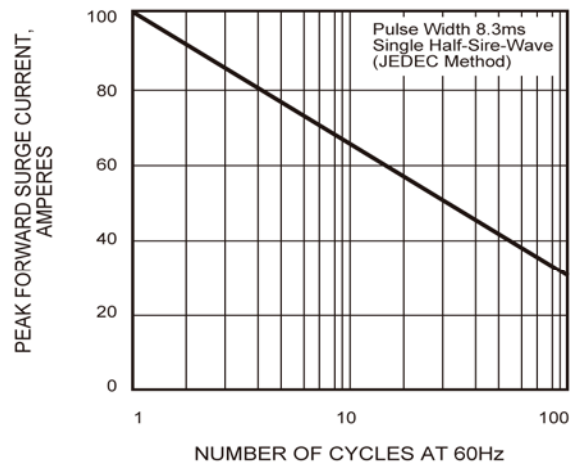


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

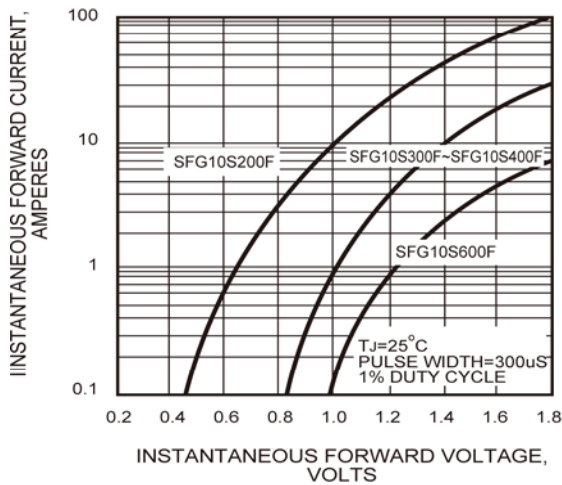


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

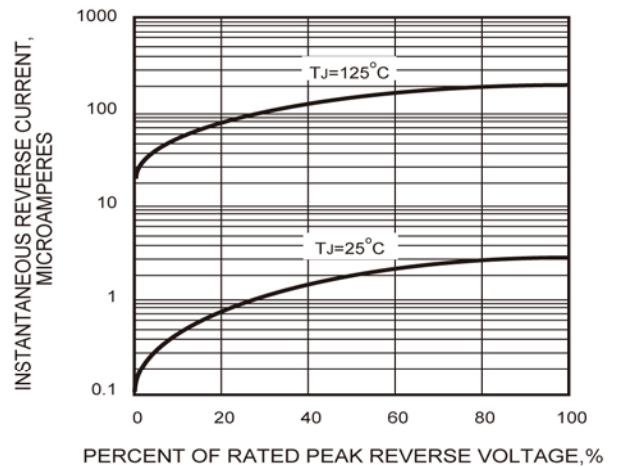


FIG.5 - TYPICAL JUNCTION CAPACITANCE

