

RoHS Compliant Product

A suffix of "-C" specifies and halogen free

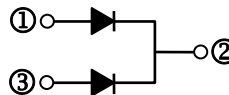
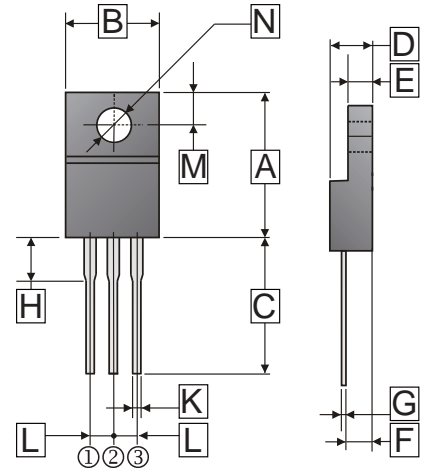
## FEATURES

- 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	φ3.2	φ3.6

## 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				$\mu\text{A}$
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

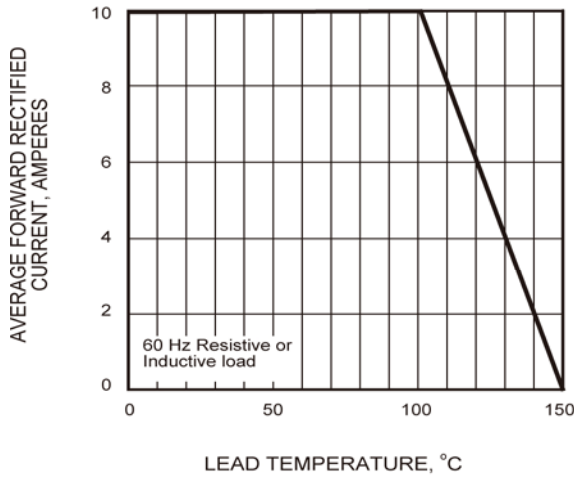


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

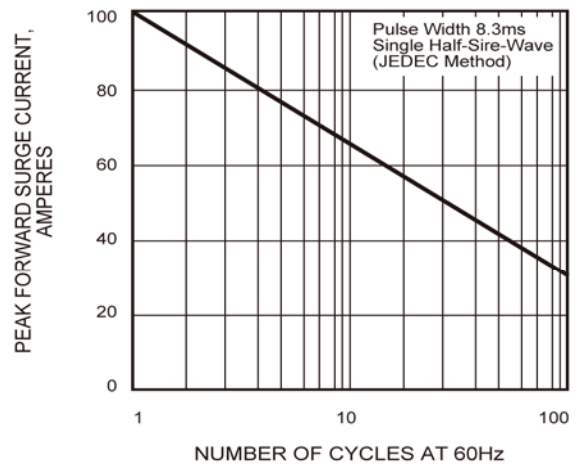


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

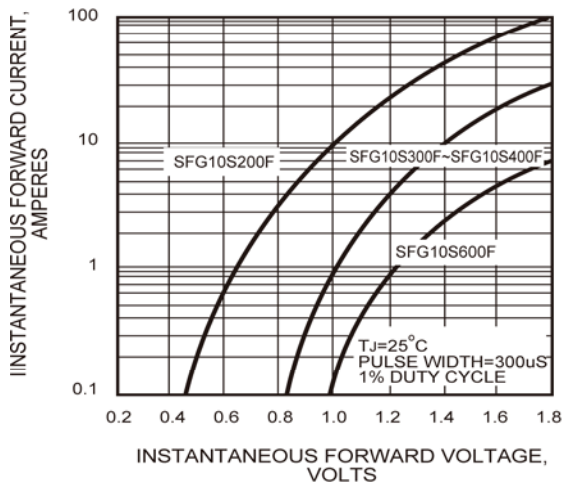


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

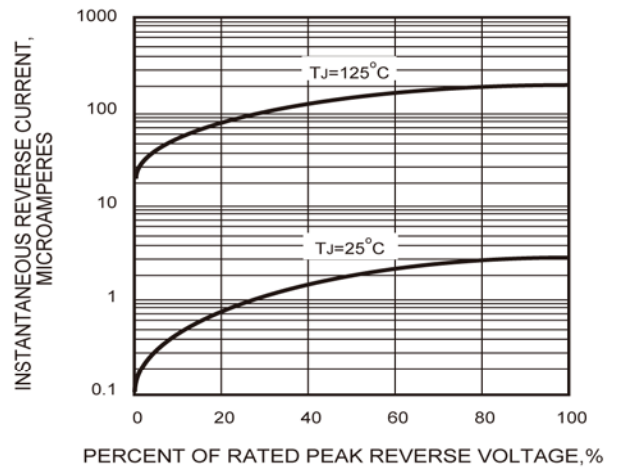


FIG.5 - TYPICAL JUNCTION CAPACITANCE

