

RoHS Compliant Product
A suffix of "-C" specifies halogen free

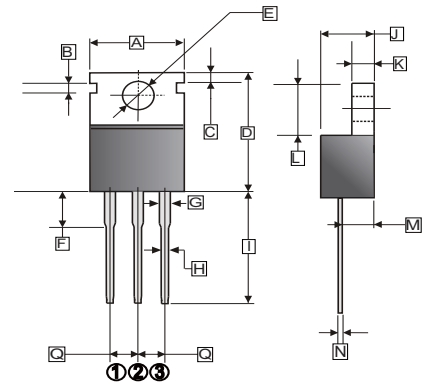
FEATURES

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

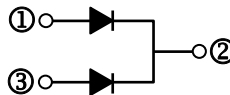
MECHANICAL DATA

- Case : Molded plastic TO-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 : 2.07 grams

TO-220Y



Dimensions in millimeters



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	-	10.5	I	12.90	13.35
B	1.58	1.82	J	4.44	4.70
C	1.33	1.45	K	1.14	1.40
D	15.3	16.2	L	5.84	6.86
E	3.50	3.91	M	2.25	2.60
F	2.90	3.25	N	0.35	0.64
G	1.22	1.43	Q	2.41	2.67
H	0.68	0.94			

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
		SFG10SD200	SFG10SD300	SFG10SD400	SFG10SD600	
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 At Rated DC Blocking Voltage	@ $T_J=25^\circ\text{C}$	10				μA
	@ $T_J=125^\circ\text{C}$	250				
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

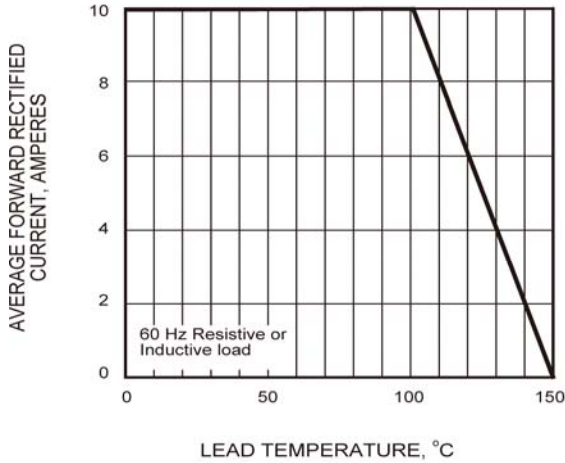


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

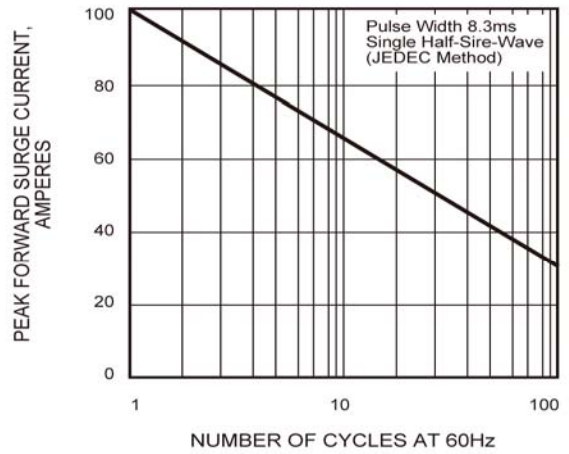


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

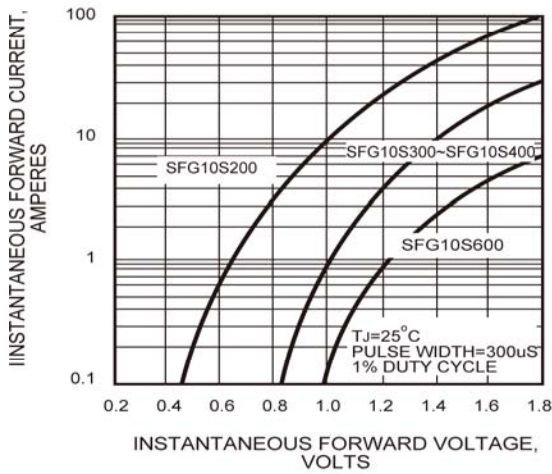


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

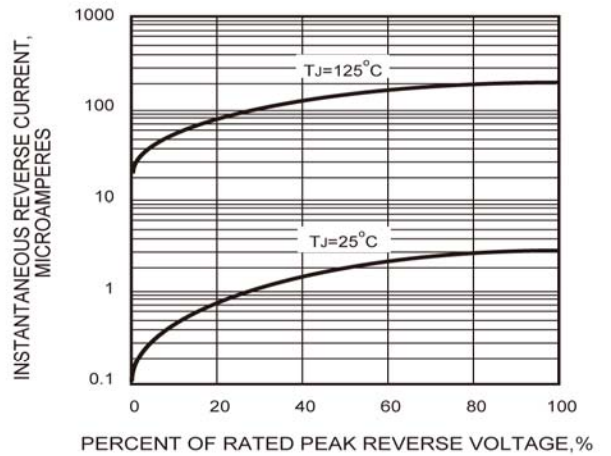


FIG.5 - TYPICAL JUNCTION CAPACITANCE

