

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

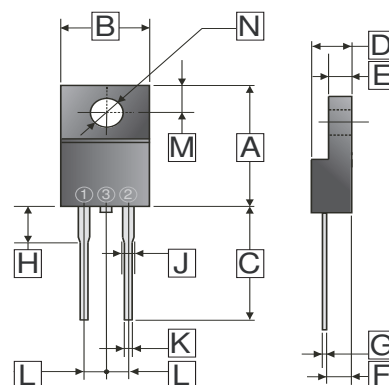
FEATURES

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

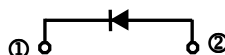
MECHANICAL DATA

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

ITO-220A



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.70	15.30	H	3.50	3.90
B	9.50	10.50	J	1.10	1.50
C	13.00	-	K	0.50	0.90
D	4.30	4.70	L	2.44	2.64
E	2.50	3.10	M	2.50	2.90
F	2.40	2.80	N	φ 3.1	φ 3.4
G	0.30	0.70			



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, de-rate current by 20%.)

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Parameters		Symbol	Part Number			Unit
			SFG08E200F	SFG08E400F	SFG08E600F	
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	200	400	600	V
Maximum RMS Voltage		V _{RMS}	140	280	420	V
Maximum DC Blocking Voltage		V _{DC}	200	400	600	V
Maximum Average Forward Rectified Current T _C =100°C		I _{F(AV)}	8.0			A
Peak Forward Surge Current,8.3ms single Half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	125			A
Maximum Instantaneous Forward Voltage @ 8.0A		V _F	0.95	1.25	2.4	V
Maximum DC Reverse Current At Rated DC Blocking Voltage	T _J =25°C	I _R	10			μA
	T _J =125°C		250			
Maximum Reverse Recovery Time ¹		T _{RR}	25			nS
Typical Junction Capacitance ²		C _J	85		50	pF
Typical Thermal Resistance ³		R _{θJC}	5.0			°C W
Operating Junction and Storage Temperature Range		T _J , T _{STG}	-55~150			°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 CHARACTERISTICS CURVE

FIG.1 - FORWARD CURRENT DERATING CURVE

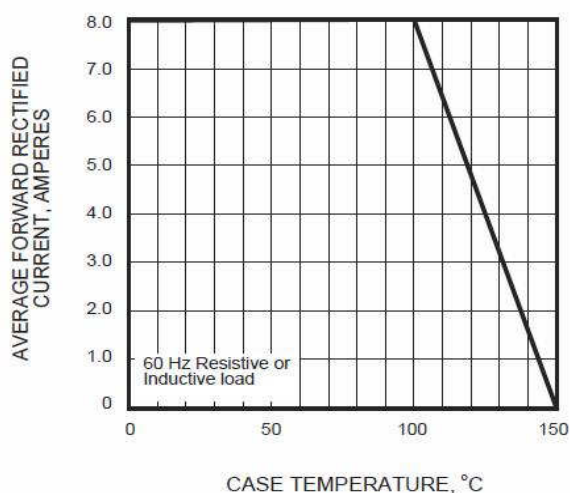


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

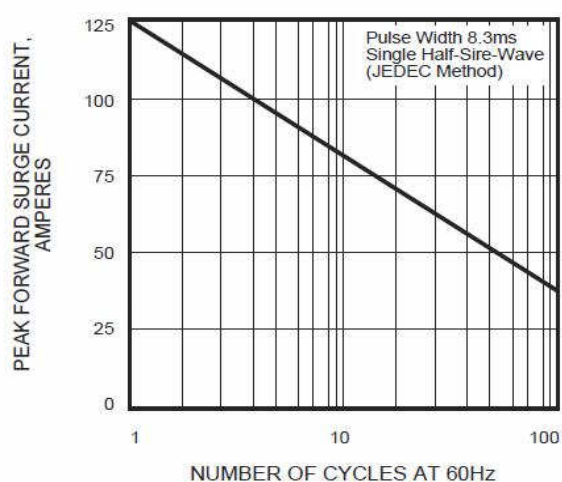


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

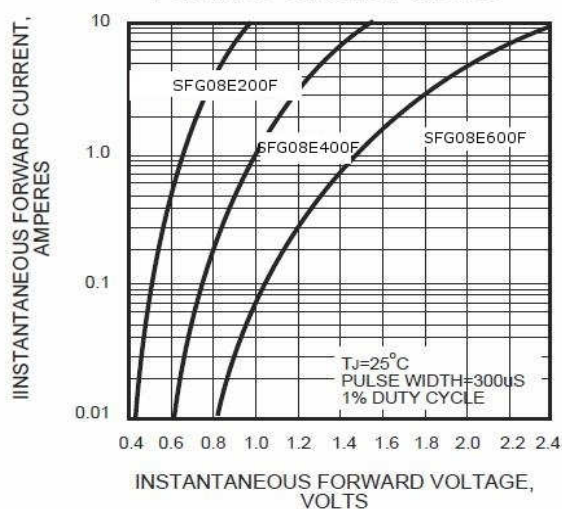


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

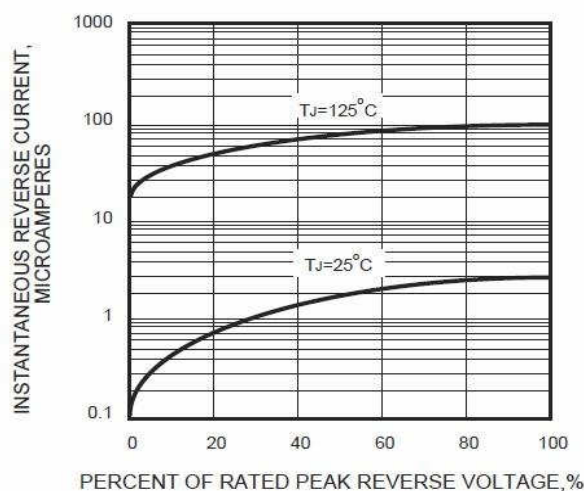
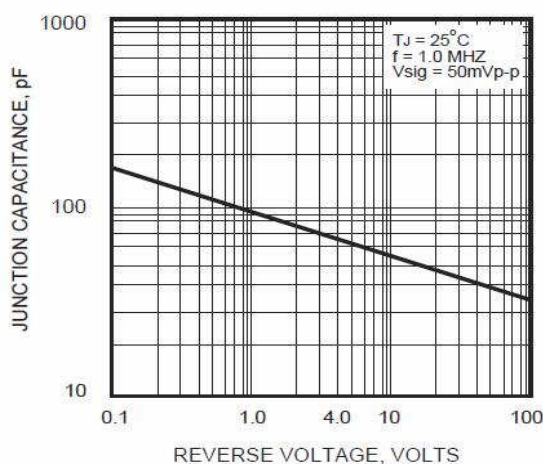


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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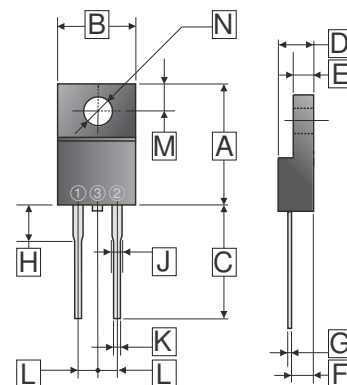
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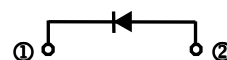
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Peak Forward Surge Current,8.3ms single Half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	200	175		A
Maximum Instantaneous Forward Voltage @ 10A		V _F	0.95	1.3	1.7	V
Maximum DC Reverse Current At Rated DC Blocking Voltage	T _J =25°C	I _R	10			μA
	T _J =125°C		250			
Maximum Reverse Recovery Time ¹		T _{RR}	35			nS
Typical Junction Capacitance ²		C _J	65			pF
Typical Thermal Resistance ³		R _{θJC}	2.2			°C W
Operating Junction and Storage Temperature Range		T _J , T _{STG}	-55~150			°C

Notes :

1. Reverse recovery test conditions $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.
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RATINGS AND CHARACTERISTICS CURVE

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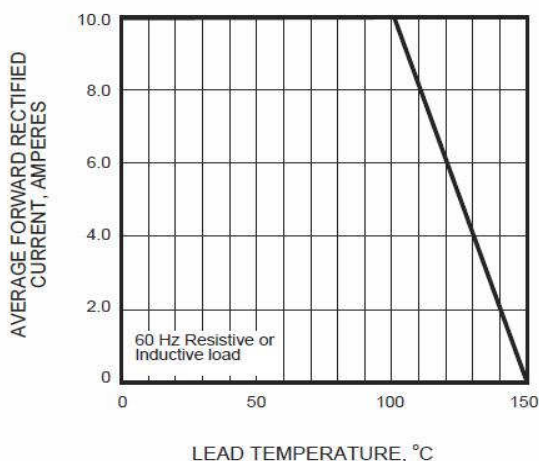


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

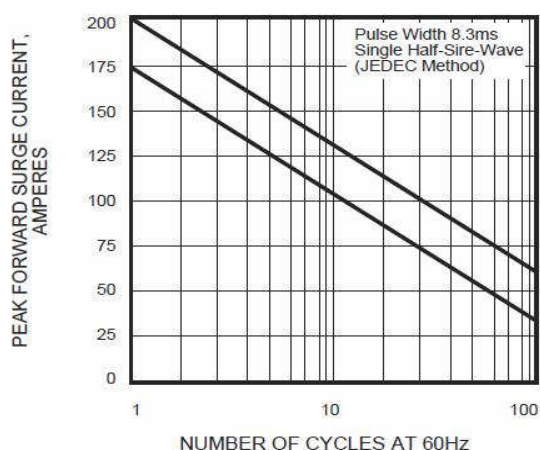


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

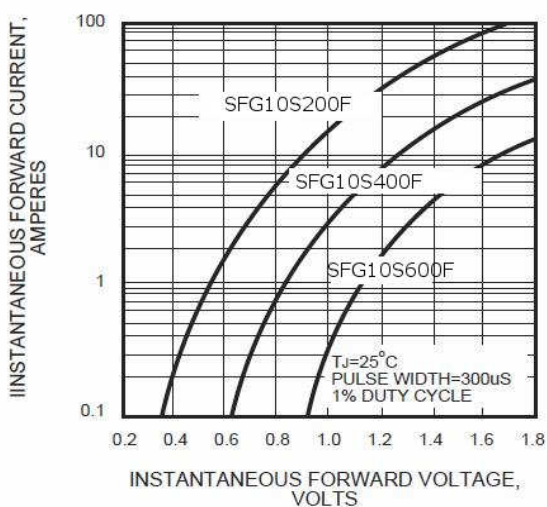


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

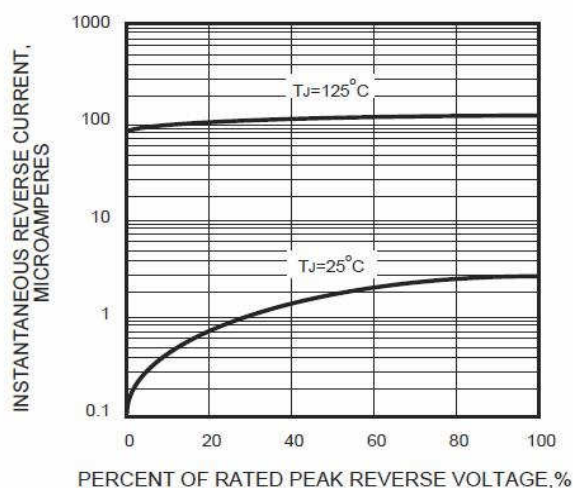


FIG.5 - TYPICAL JUNCTION CAPACITANCE

