

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

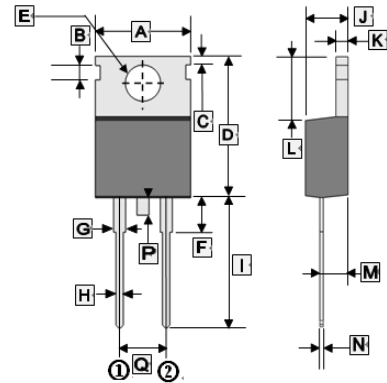
FEATURES

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

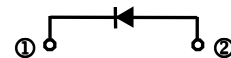
MECHANICAL DATA

- Case : Molded plastic TO-220YA
- Epoxy : UL 94V-0 rate flame retardant
- Terminals : Solderable per MIL-STD-202 method 208
- Polarity : Color band denotes cathode
- Mounting position : Any
- Weight : 2.07 grams

TO-220YA



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	P	-	1.7
H	0.68	0.94	Q	4.95	5.20



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%.)

Parameters		Symbol	Part Number			Unit
			SFG08E200	SFG08E400	SFG08E600	
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}	2.2			°C/ W
Operating Junction and Storage Temperature Range		T _J , T _{STG}	-55~150			°C

Notes :

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

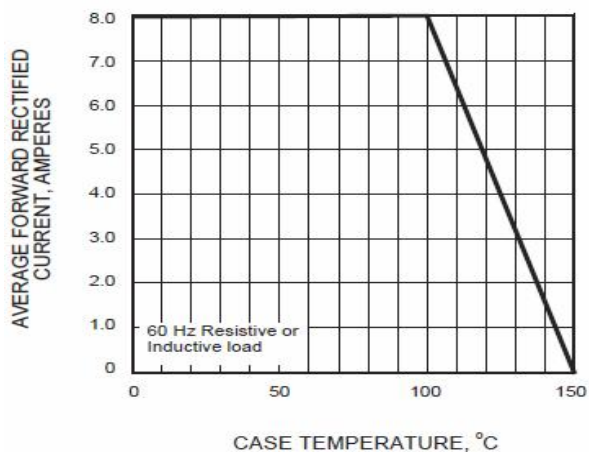


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

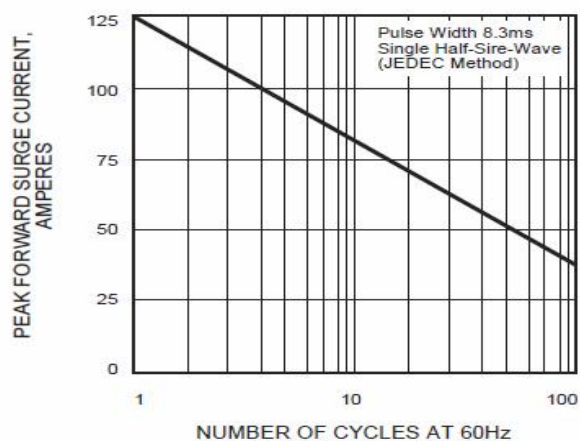


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

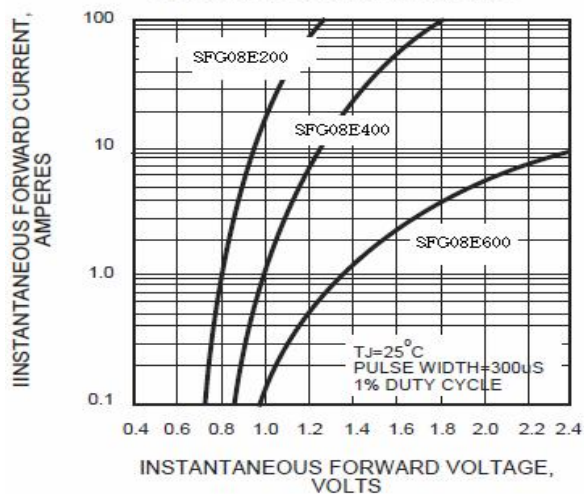


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

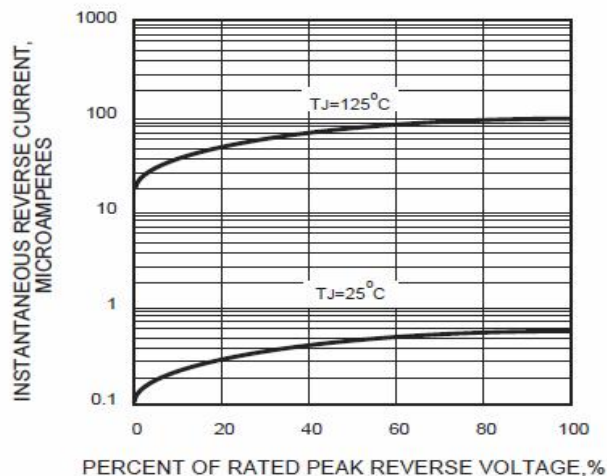


FIG.5 - TYPICAL JUNCTION CAPACITANCE

