Elektronische Bauelemente

SFG08E200~SFG08E600

Voltage 200V ~ 600V

0.8 Amp Super Fast Recovery Rectifier

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

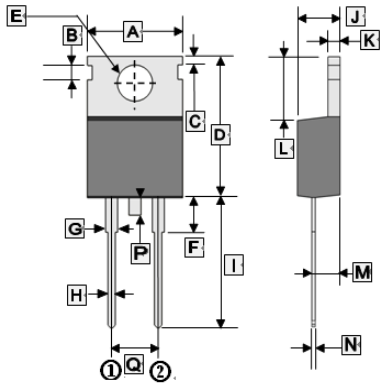
FEATURES

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

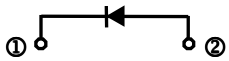
MECHANICAL DATA

- 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]		$R_{\theta JC}$	2.2			℃/ W
Operating Junction and Storage Temperature Range		T_J, T_{STG}	-55~150			℃

Notes：

1. Reverse recovery test conditions I_F= 0.5A, I_R= 1.0A, I_{RR}= 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
3. Thermal Resistance junction to case.

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RATINGS AND CHARACTERISTICS CURVE

FIG.1 - FORWARD CURRENT DERATING CURVE

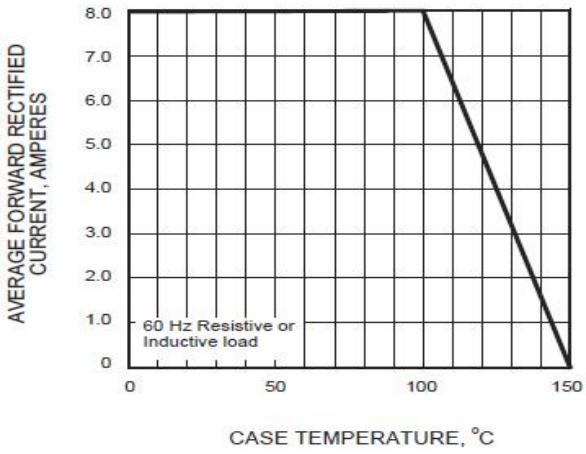


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

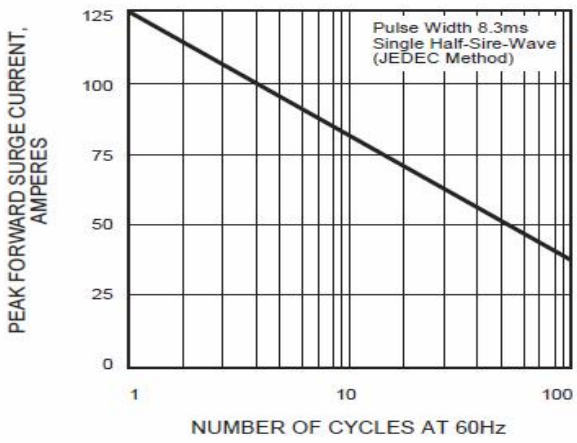


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

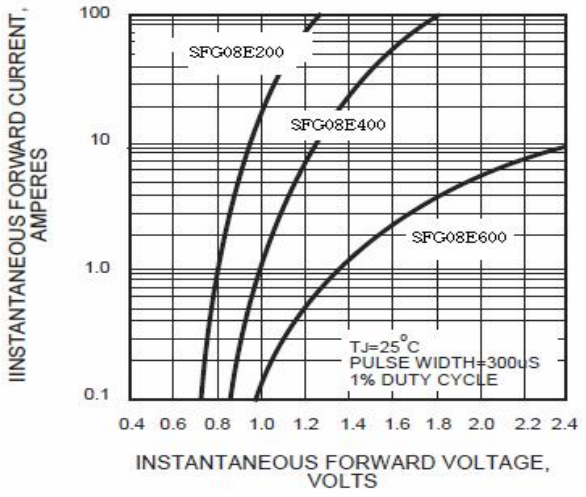


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

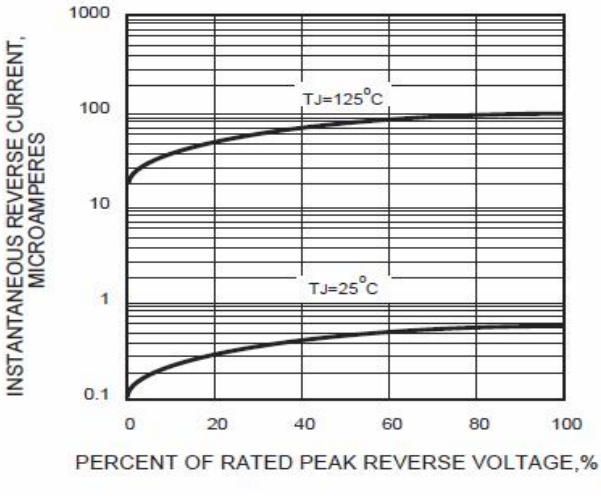


FIG.5 - TYPICAL JUNCTION CAPACITANCE

