Elektronische Bauelemente

SFG20ED100 ~ SFG20ED600

Voltage 100V ~ 600V
20.0 Amp Super Fast Rectifier

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

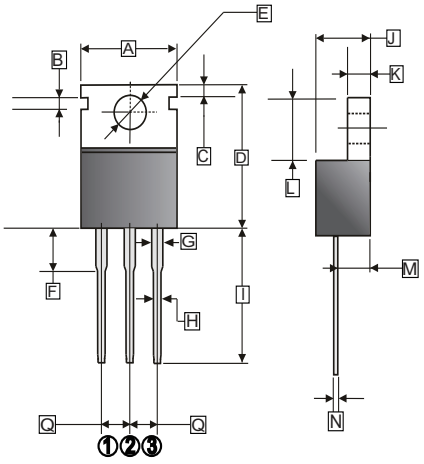
FEATURES

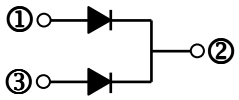
- Fast switching for high efficiency
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability

MECHANICAL DATA

- Case：Molded plastic ITO-220Y
- 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-220Y





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
			SFG20ED100	SFG20ED200	SFG20ED400	SFG20ED600	
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	100	200	400	600	V
Maximum RMS Voltage		V_{RMS}	70	140	280	420	V
Maximum DC Blocking Voltage		V_{DC}	100	200	400	600	V
Maximum Average Forward Rectified Current T_C=125°C		$I_{F(AV)}$	20				A
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 @ 10.0A		V_F	0.95		1.25	1.7	V
Maximum DC Reverse Current At Rated DC Blocking Voltage	T_J=25°C	I_R	10				μA
	T_J=150°C		500				
Maximum Reverse Recovery Time[1]		T_{RR}	25			35	nS
Typical Junction Capacitance[2]		C_J	120		70		pF
Operating Junction and Storage Temperature Range		T_J, T_{STG}	-55~150				°C

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.

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RATINGS AND CHARACTERISTICS CURVE

FIG.1 - FORWARD CURRENT DERATING CURVE

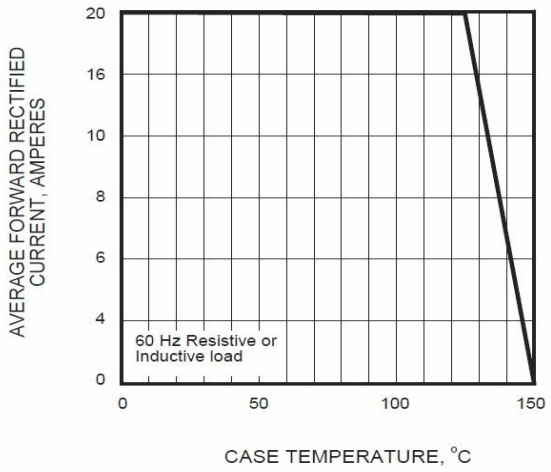

FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

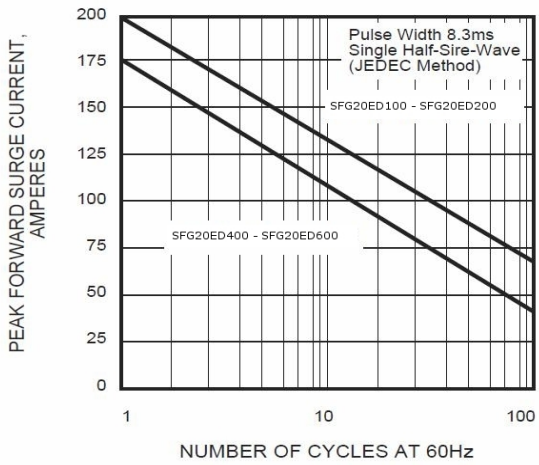

FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

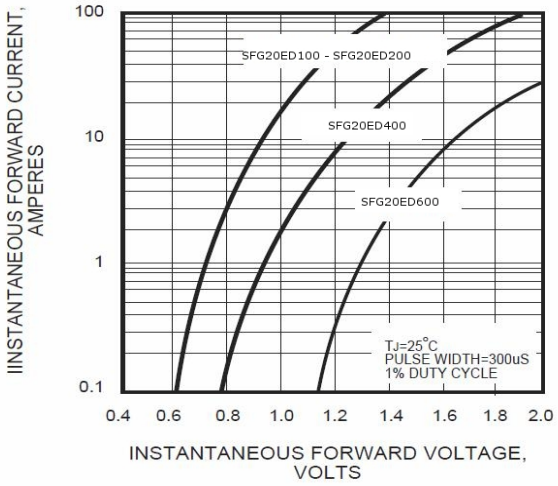

FIG.4 - TYPICAL REVERSE CHARACTERISTICS

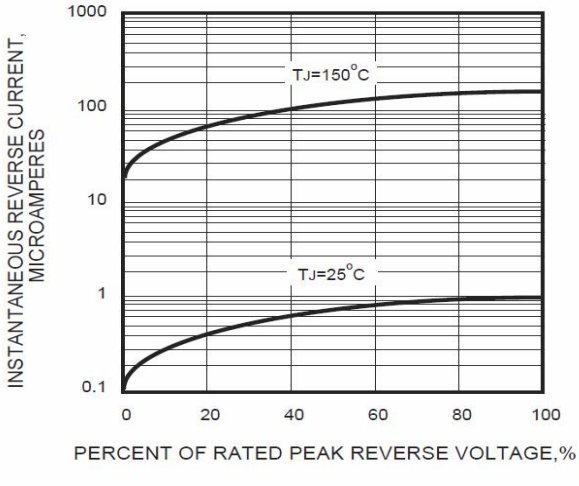

FIG.5 - TYPICAL JUNCTION CAPACITANCE