Elektronische Bauelemente

SFG10SD200F ~ SFG10SD600F

Voltage 200 to 600 V
10 Amp Super Fast Rectifier

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

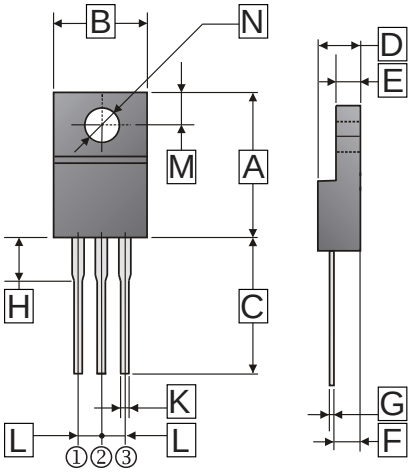
FEATURES

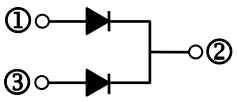
- Fast switching for high efficiency
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability

MECHANICAL DATA

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

ITO-220Y





REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.80	15.20	G	0.30	0.70
B	9.50	10.50	H	3.50	3.41
C	12.40	14.30	K	0.50	0.65
D	4.30	4.70	L	2.35	2.70
E	2.80	3.20	M	2.50	2.80
F	2.40	2.90	N	ϕ3.2	ϕ3.6

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
		SFG10SD 200F	SFG10SD 300F	SFG10SD 400F	SFG10SD 600F	
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°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 @ T_J=25°C At Rated DC Blocking Voltage @ T_J=125°C	I_R	10 250				μA
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				°C / W
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.
(3)Thermal Resistance junction to Case.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

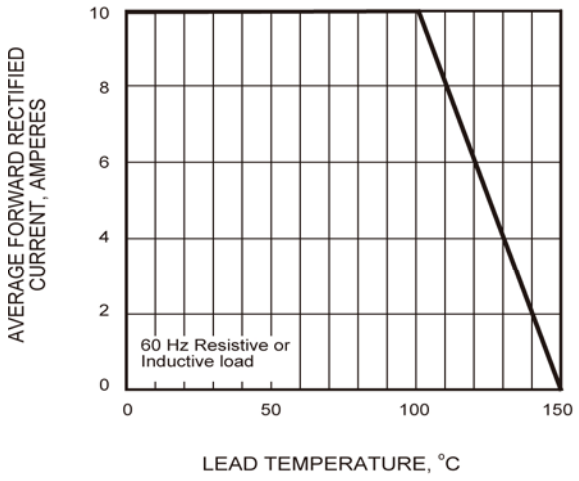


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

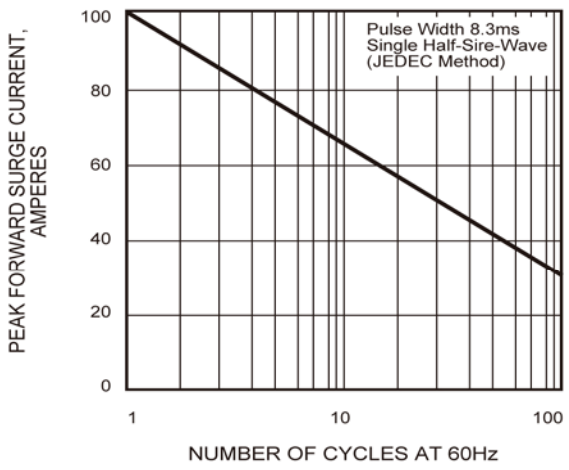


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

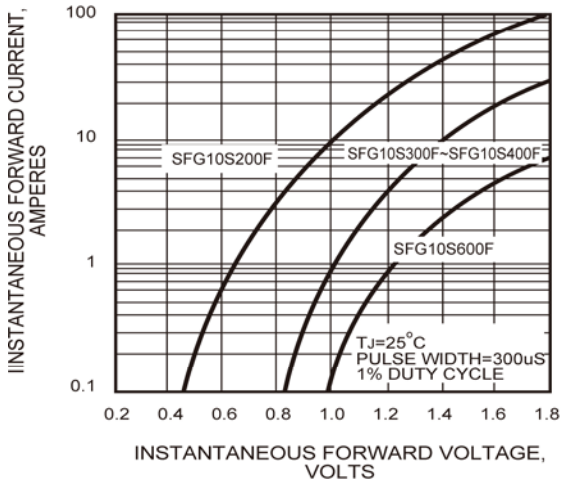


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

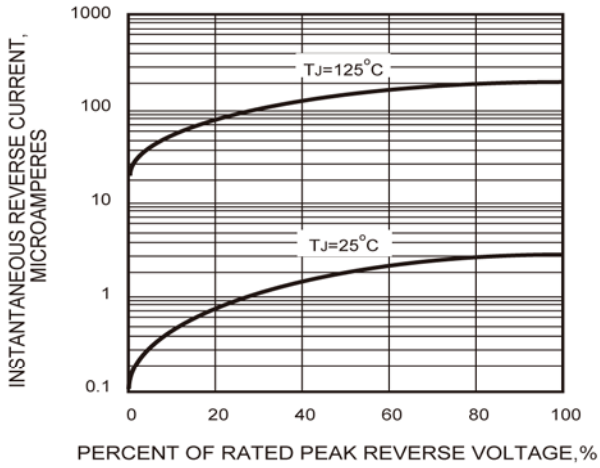
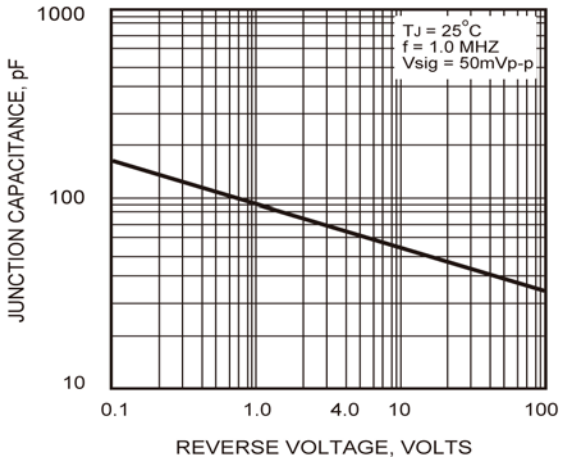



FIG.5 - TYPICAL JUNCTION CAPACITANCE