Elektronische Bauelemente

SFG15U600F

Voltage 600 V

15 Amp Low Loss Ultrafast Rectifier

RoHS Compliant Product

A suffix of "-C" specifies halogen free

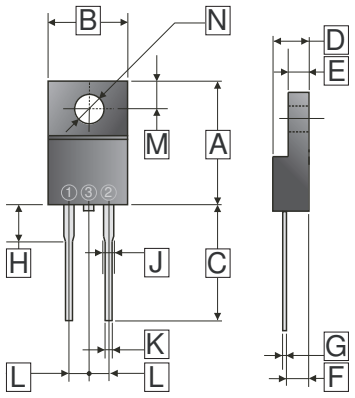
FEATURES

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

MECHANICAL DATA

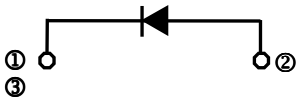
- Case：Molded plastic ITO-220A
- Epoxy：UL 94V-0 rate flame retardant
- Terminals：Solderable per MIL-STD-202 method 208
- Polarity：Color band denotes cathode
- Mounting position：Any
- Weight：1.66 grams

ITO-220A



Dimensions in millimeters

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.70	15.30	H	3.50	5.30
B	9.50	10.50	J	1.10	1.50
C	12.40	14.30	K	0.50	0.90
D	4.30	4.70	L	2.44	2.64
E	2.50	3.20	M	2.50	2.90
F	2.40	2.9	N	ϕ3.1	ϕ3.58
G	0.30	0.70			



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter		Symbol	Ratings	Unit
Maximum Recurrent Peak Repetitive Reverse Voltage		V_{RRM}	600	V
Maximum RMS Voltage		V_{RMS}	420	V
Maximum DC Blocking Voltage		V_{DC}	600	V
Maximum Average Rectifier Forward Current	T_C=100°C	$I_{F(AV)}$	15	A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	150	A
Maximum Instantaneous Forward Voltage @ 15A		V_F	1.5	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}	50	nS
Typical Junction Capacitance[2]		C_J	65	pF
Thermal Resistance[3]		$R_{\theta JC}$	2.2	°C / W
Operating Junction and Storage Temperature Range		T_J, T_{STG}	-55 ~ 175	°C

Note:

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

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RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

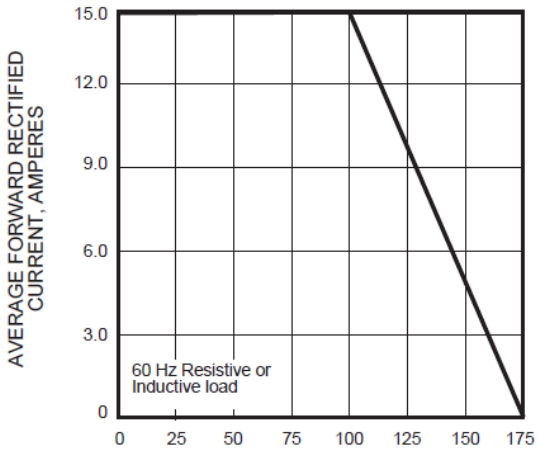
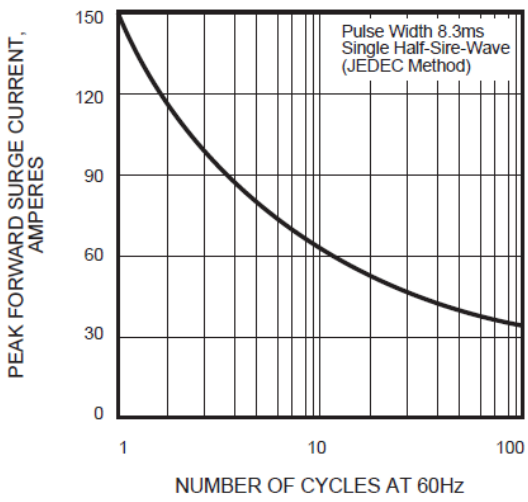
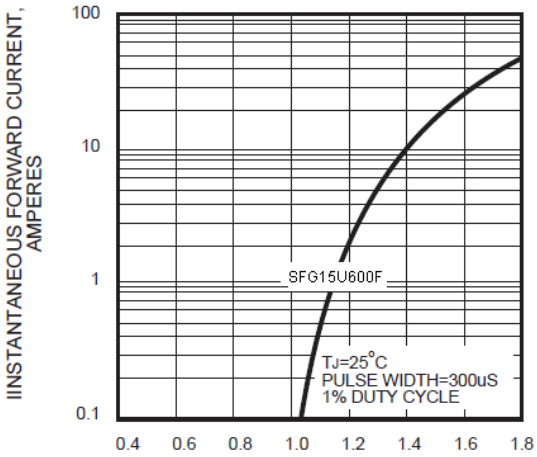


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



FORWARD CHARACTERISTICS



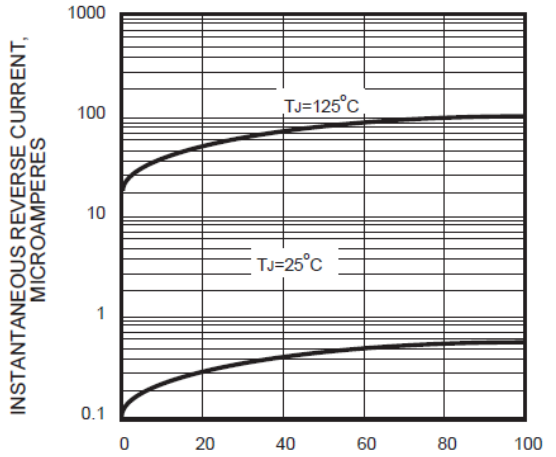


FIG.5 - TYPICAL JUNCTION CAPACITANCE