Elektronische Bauelemente

SFG10ED50F ~ SFG10ED600F

Voltage 50V ~ 600V

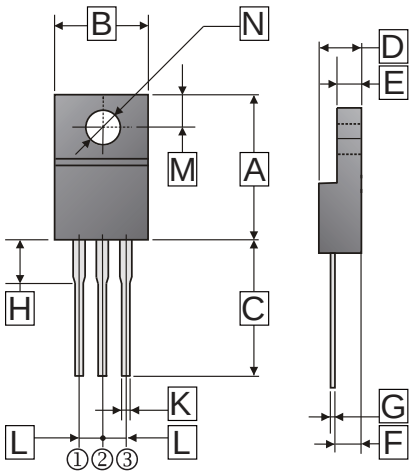
10Amp Super Fast Rectifier

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

FEATURES

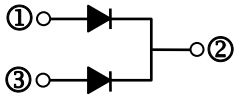
- Fast switching for high efficiency
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability

ITO-220Y



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
- Weight：1.73 grams



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
			SFG 10ED50F	SFG 10ED100F	SFG 10ED200F	SFG 10ED400F	SFG 10ED600F	
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	V
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	V
Maximum DC Blocking Voltage		V_{DC}	50	100	200	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
Maximum Instantaneous Forward Voltage @ 5.0A		V_F	0.95			1.25	1.85	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	65					pF
Typical Thermal Resistance[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.

Elektronische Bauelemente

SFG10ED50F ~ SFG10ED600F

Voltage 50V ~ 600V

10Amp Super Fast Rectifier

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

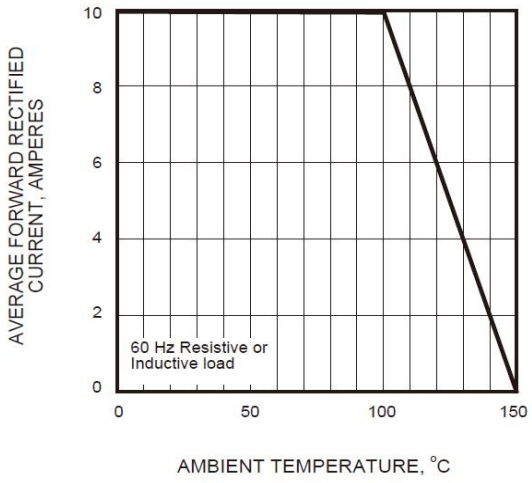


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

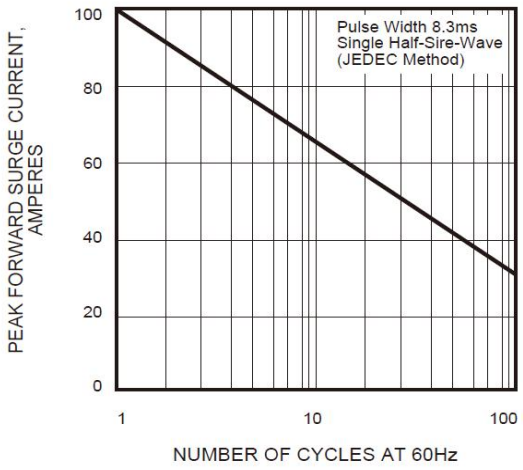


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

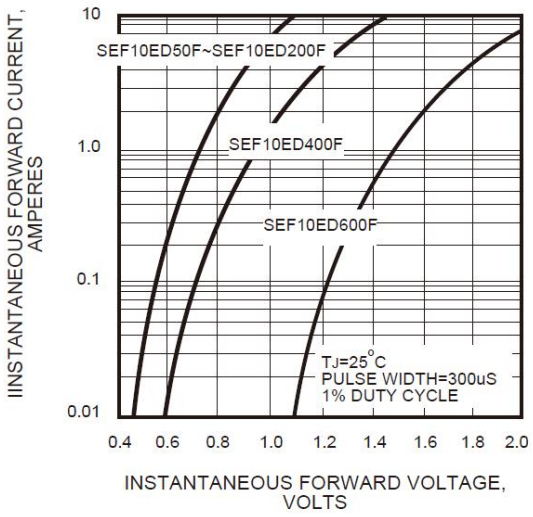


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

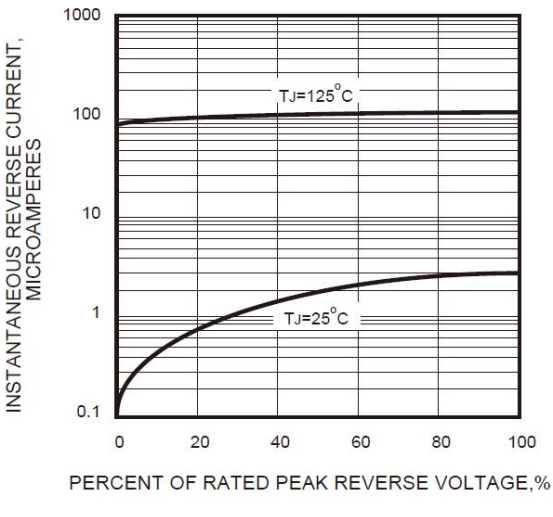


FIG.5 - TYPICAL JUNCTION CAPACITANCE

