

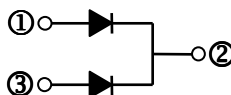
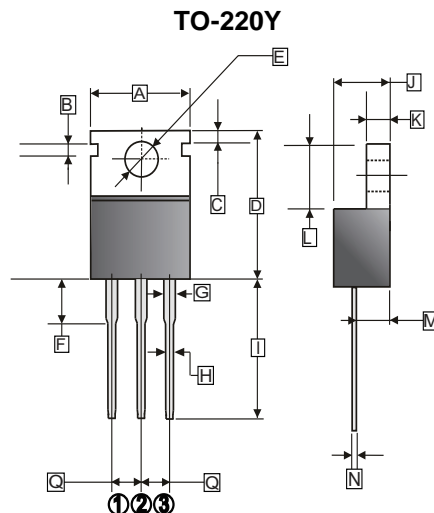
RoHS Compliant Product  
A suffix of "-C" specifies and halogen free

## 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-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 : 2.24 grams



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, de-rate current by 20%.)

Parameters	Symbol	Part Number			Unit
		SFG16UD200	SFG16UD400	SFG16UD600	
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 $T_C=100^\circ C$	$I_{F(AV)}$	16			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 @ 8A	$V_F$	1	1.3	1.7	V
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	$T_J=25^\circ C$	10		$\mu A$
		$T_J=125^\circ C$	250		
Maximum Reverse Recovery Time <sup>1</sup>	$T_{RR}$	50		75	nS
Typical Junction Capacitance <sup>2</sup>	$C_J$	65			pF
Typical Thermal Resistance	$R_{\theta JC}$	15			$^\circ C / W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55~150			$^\circ C$

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.

**RATINGS AND CHARACTERISTICS CURVE**

FIG.1 - FORWARD CURRENT DERATING CURVE

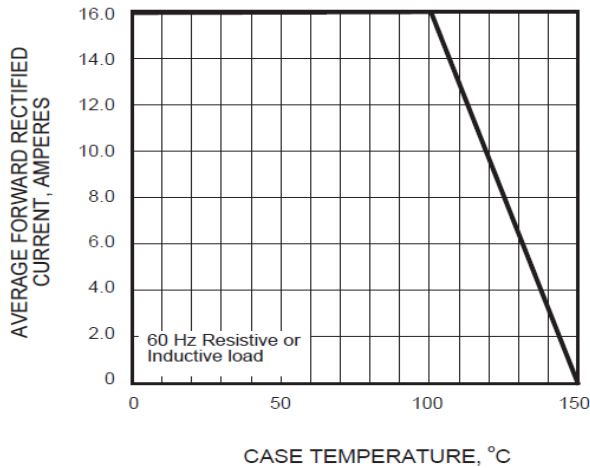


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

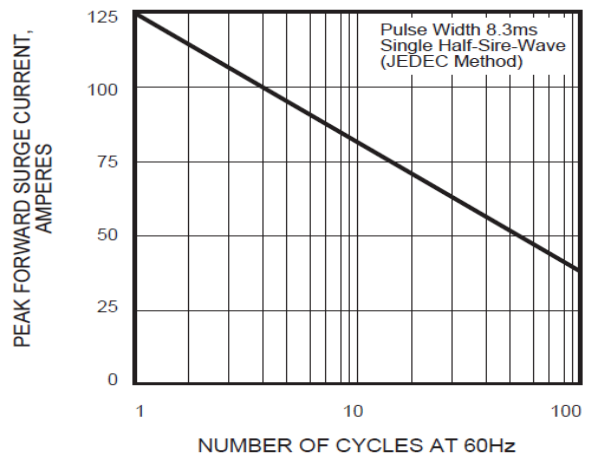


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

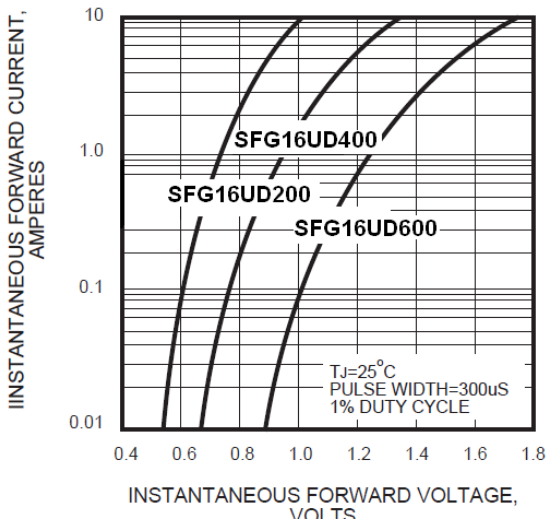


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

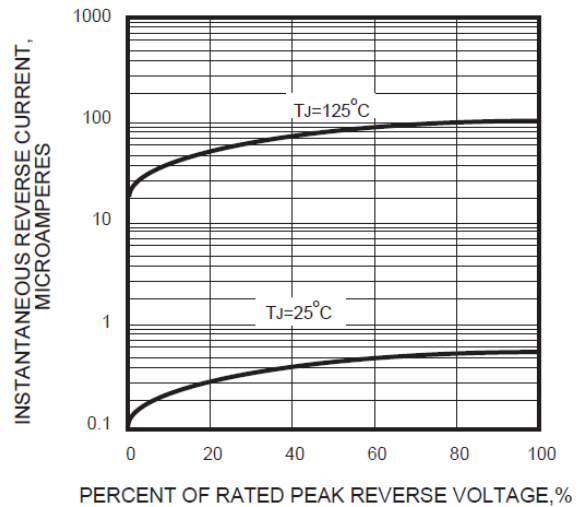


FIG.5 - TYPICAL JUNCTION CAPACITANCE

