

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

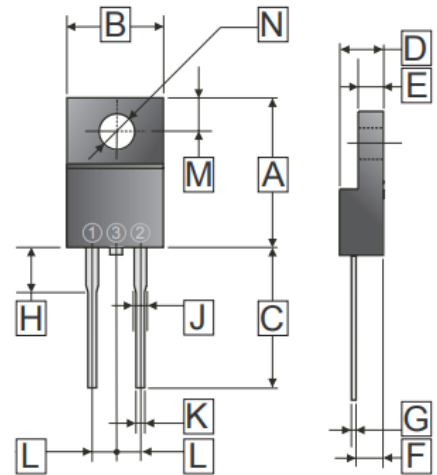
## FEATURES

- Fast switching for high efficiency
- 150°C Operating Junction Temperature
- Low Power Loss, High Efficiency
- High-Switching Speed 35 Nanosecond Recovery Time
- Low Forward Voltage, High Current Capability
- Plastic Material Used Carries Underwriters Laboratory Flammability Classification 94V-0

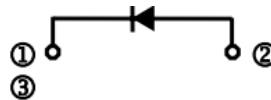
## ORDER INFORMATION

Part Number	Type
SF05T60F	Lead (Pb)-free
SF05T60F-C	Lead (Pb)-free and Halogen-free

## ITO-220A



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.40	15.90	H	3.45	5.30
B	9.50	10.70	J	1.6 TYP.	
C	12.40	14.30	K	0.30	0.90
D	4.20	5.10	L	2.54 TYP.	
E	2.50	3.65	M	2.15	3.25
F	2.10	3.20	N	φ 2.6	φ 3.56
G	0.30	0.80			



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, de-rate current by 20%.)

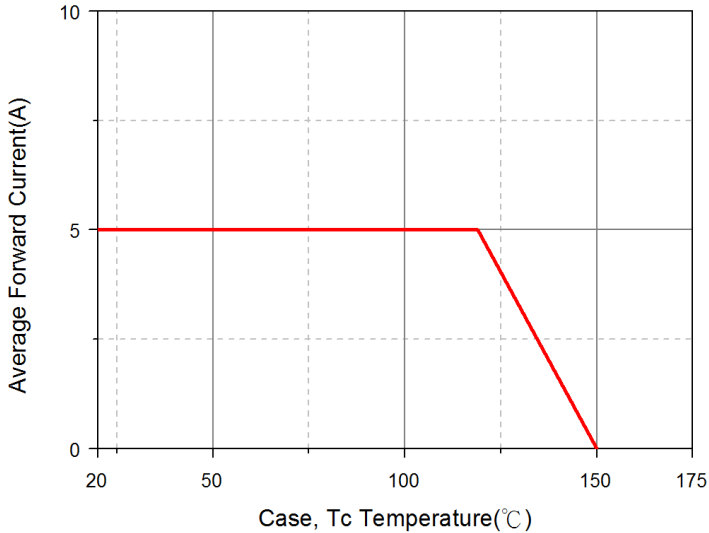
Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	600	V
Working Peak Reverse Voltage	$V_{RWM}$	600	V
DC Blocking Voltage	$V_R$	600	V
Average Rectifier Forward Current	$I_{F(AV)}$	5	A
Non-Repetitive Peak Surge Current @ Surge applied at rate load conditions half-wave, single phase, 60Hz	$I_{FSM}$	60	A
Max. Instantaneous Forward Voltage @ $I_F=5A$	$V_F$	$T_A=25^\circ C$	1.55
		$T_A=125^\circ C$	1.45
Max. Instantaneous Reverse Current <sup>2</sup>	$I_R$	$T_A=25^\circ C$	5
		$T_A=125^\circ C$	20
Reverse Recovery Time <sup>3</sup>	$T_{RR}$	35	nS
Typical Junction Capacitance <sup>1</sup>	$C_J$	15	pF
Thermal Resistance	$R_{\theta JC}$	4	°C / W
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	150, -55~150	°C

### Notes:

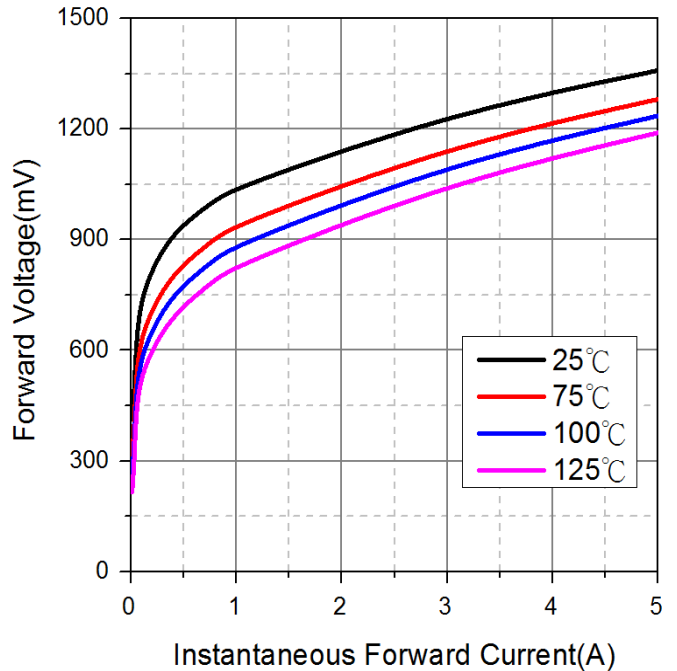
1. Measured at 1MHz and applied reverse voltage of 5V D.C.
2. Pulse Test: Pulse Width=300μs, Duty Cycle ≤ 2%.
3.  $I_F=0.5A, I_R=1A, I_{RR}=0.25A$ .

**RATINGS AND CHARACTERISTIC CURVES**

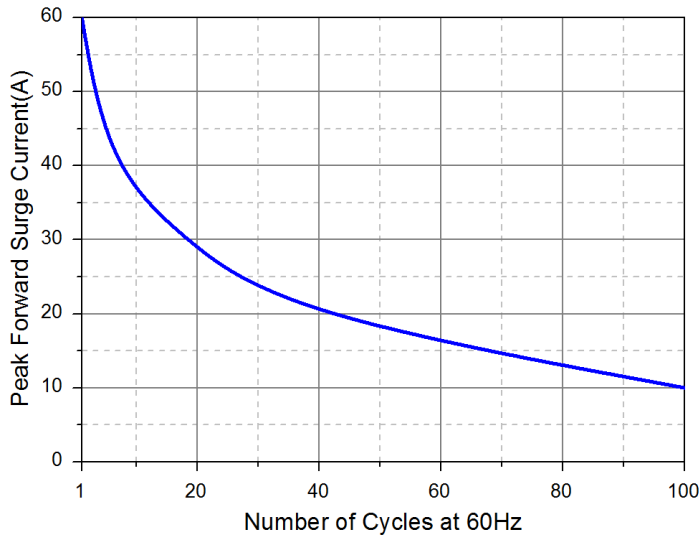
Typical Forward Current Derating Curve



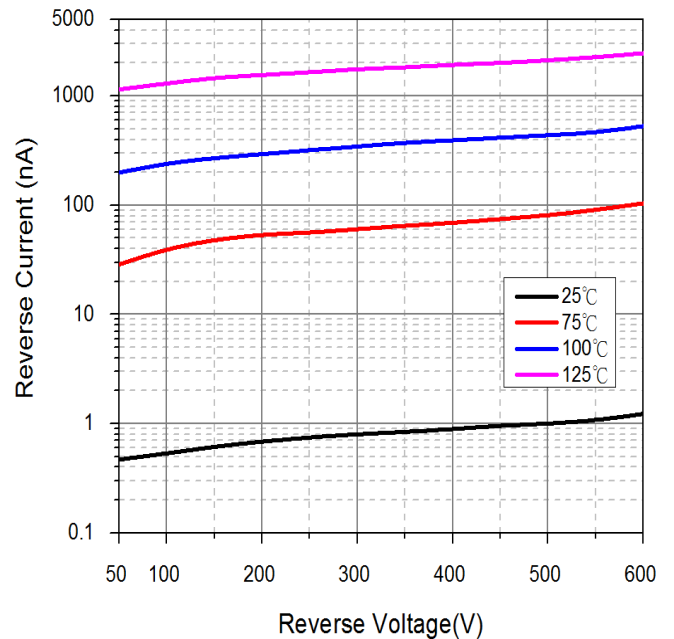
Typical Forward Characteristic



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

