

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

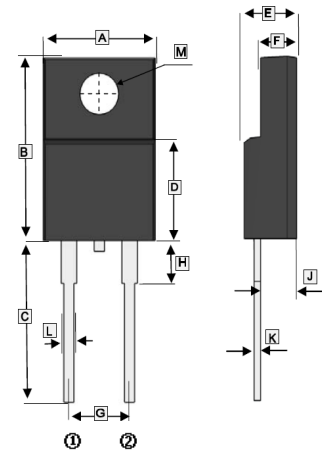
FEATURES

- Fast Switching for High Efficiency
- 150°C Operating Junction Temperature
- Low Power Loss, High Efficiency
- High-Switching Speed 30 Nanosecond Recovery Time
- Low Forward Voltage, High Current Capability
- Plastic Material Used Carries Underwriters Laboratory Flammability Classification 94V-0

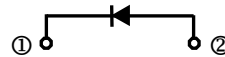
ORDER INFORMATION

Part Number	Type
SF10T40F	Lead (Pb)-free
SF10T40F-C	Lead (Pb)-free and Halogen-free

ITO-220A



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	9.50	10.70	G	3.60	5.90
B	14.40	15.90	H	3.45	4.50
C	12.70	14.20	J	2.10	3.20
D	8.40TYP		K	0.40	0.80
E	4.20	5.10	L	0.30	0.90
F	2.50	3.56	M	φ 2.60	φ 3.80



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%.)

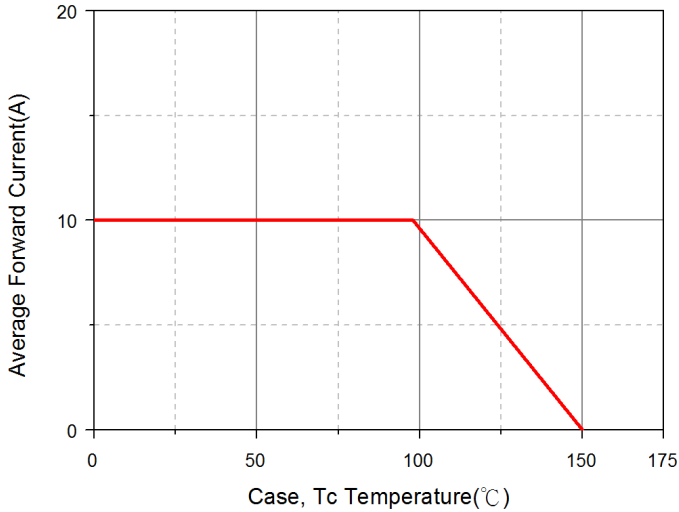
Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	400	V
Working Peak Reverse Voltage	V_{RWM}	400	V
DC Blocking Voltage	V_R	400	V
Average Rectifier Forward Current	$I_{F(AV)}$	10	A
Non-Repetitive Peak Surge Current @ Surge applied at rate load conditions half-wave, single phase, 60Hz	I_{FSM}	90	A
Max. Instantaneous Forward Voltage @ $I_F=10A$	V_F	$T_A=25^\circ C$	1.3
		$T_A=125^\circ C$	1.2
Max. Instantaneous Reverse Current ²	I_R	$T_A=25^\circ C$	5
		$T_A=125^\circ C$	20
Reverse Recovery Time ³	T_{RR}	30	nS
Typical Junction Capacitance ¹	C_J	45	pF
Thermal Resistance	$R_{\theta JC}$	4	°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	150, -55~150	°C

Notes:

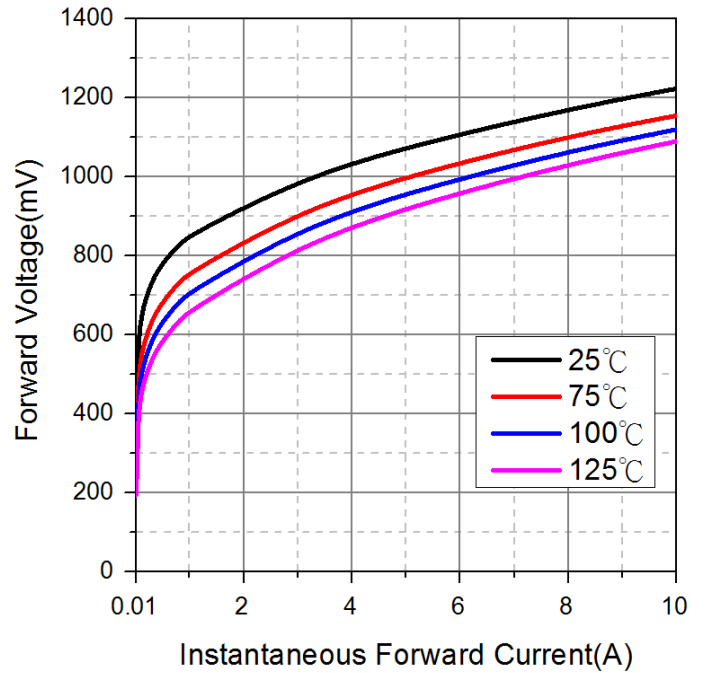
1. Measured at 1MHz and applied reverse voltage of 5V D.C.
2. Pulse Test: Pulse Width=300μs, Duty Cycle ≤ 2%.
3. $I_F=0.5A, I_R=1A, I_{RR}=0.25A$.

RATINGS AND CHARACTERISTIC CURVES

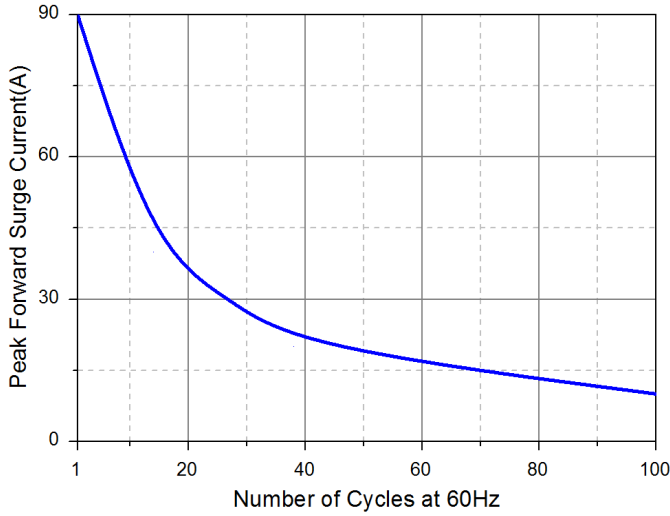
Typical Forward Current Derating Curve



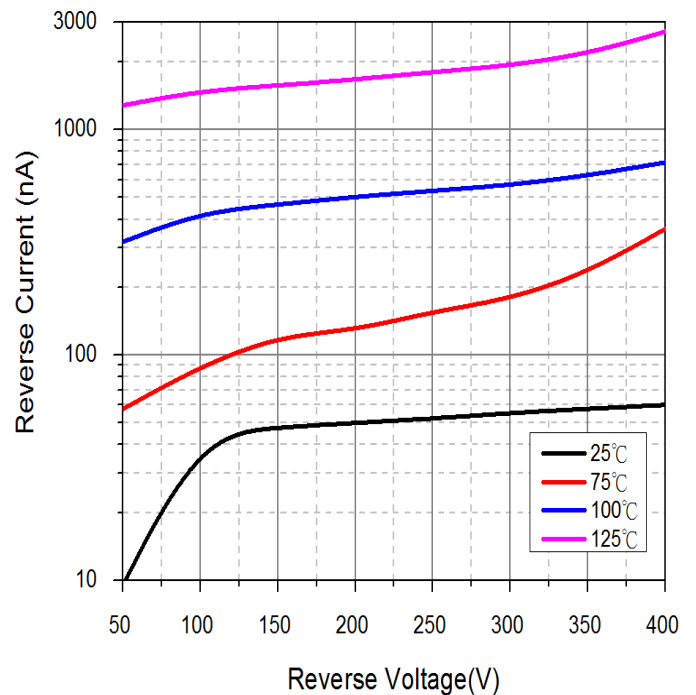
Typical Forward Characteristic



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

