

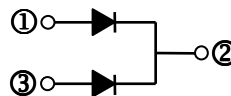
RoHS Compliant Product
A suffix of "-C" specifies halogen free

FEATURES

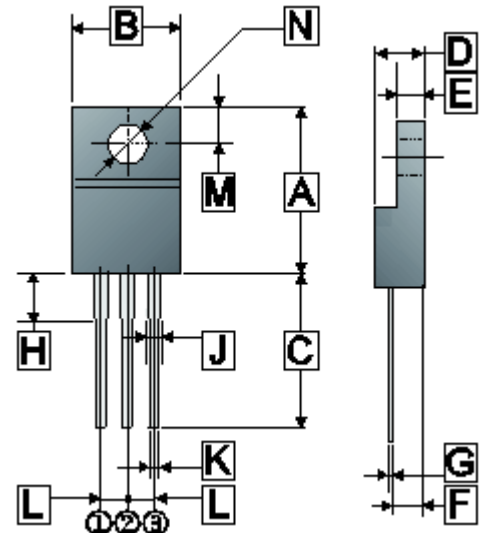
- Fast switching for high efficiency
- 150°C Operating Junction Temperature
- Low Power Loss, High Efficiency
- High-Switching Speed 25 Nanosecond Recovery Time
- Low Forward Voltage, High Current Capability
- Plastic Material Used Carries Underwriters Laboratory Flammability Classification 94V-0

ORDER INFORMATION

Part Number	Type
SF20ED20F	Lead (Pb)-free
SF20ED20F-C	Lead (Pb)-free and Halogen-free



ITO-220



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.50	16.50	H	2.70	4.35
B	9.50	10.72	J	0.90	1.70
C	12.60	14.22	K	0.30	0.95
D	4.20	5.10	L	2.34	2.75
E	2.30	3.30	M	2.40	3.60
F	2.30	3.10	N	φ 3.0	φ 3.8
G	0.30	0.75			

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%.)

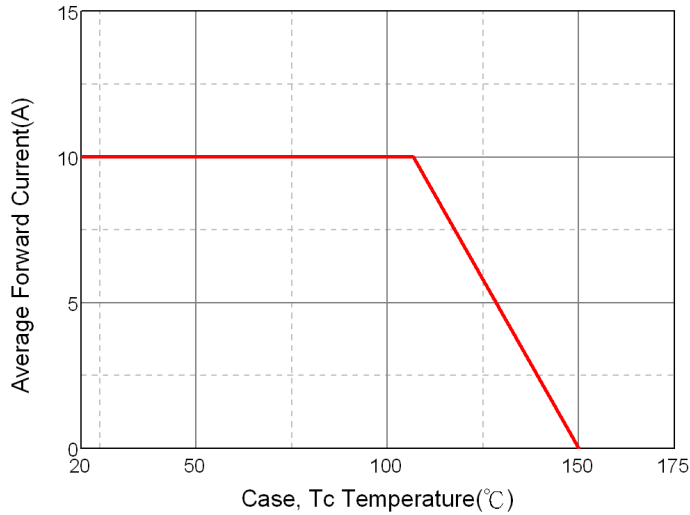
Parameter		Symbol	Rating	Unit
Peak Repetitive Reverse Voltage		V_{RRM}	200	V
Working Peak Reverse Voltage		V_{RWM}	200	V
DC Blocking Voltage		V_R	200	V
Average Rectifier Forward Current		$I_{F(AV)}$	20	A
Non-Repetitive Peak Surge Current @ Surge applied at rate load conditions half-wave, single phase, 60Hz		I_{FSM}	100	A
Max. Instantaneous Forward Voltage @ $I_F=10A$		V_F	0.98	V
Max. Instantaneous Reverse Current ²	$T_J=25^{\circ}C$	I_R	5	μA
	$T_J=125^{\circ}C$		50	
Reverse Recovery Time ³		T_{RR}	25	nS
Typical Junction Capacitance ¹		C_J	65	pF
Thermal Resistance		$R_{\theta JC}$	4	$^{\circ}C / W$
Operating Junction and Storage Temperature Range		T_J, T_{STG}	150, -55~150	$^{\circ}C$

Notes:

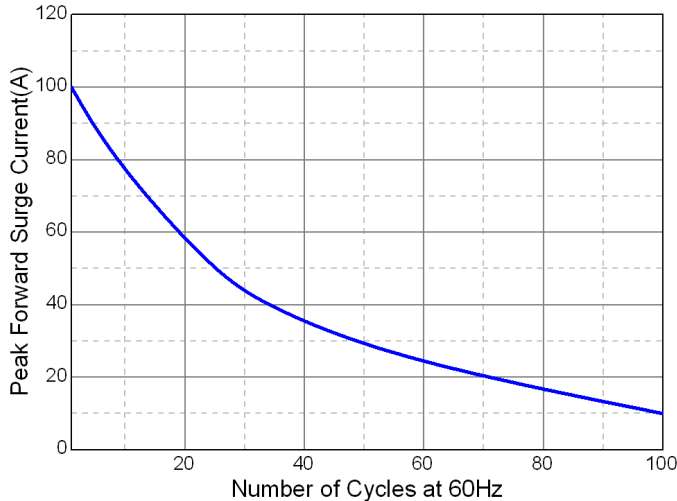
1. Measured at 1MHz and applied reverse voltage of 5V D.C.
2. Pulse Test: Pulse Width=300 μs , Duty Cycle $\leq 2\%$.
3. $I_F=0.5A$, $I_R=1A$, $I_{RR}=0.25A$.

RATINGS AND CHARACTERISTIC CURVES

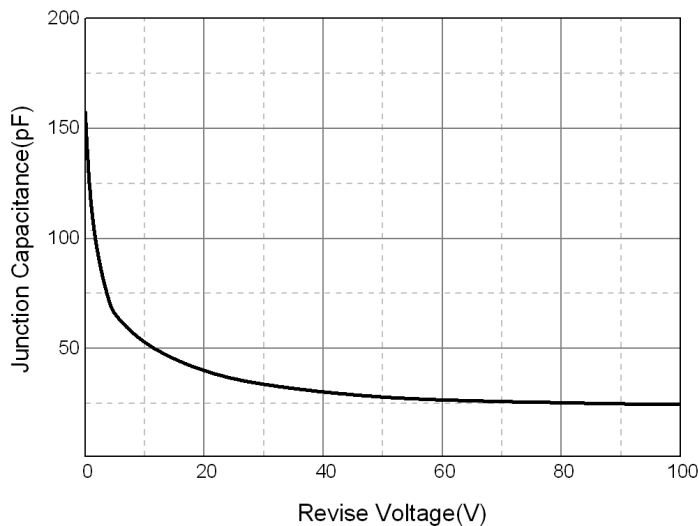
Typical Forward Current Derating Curve



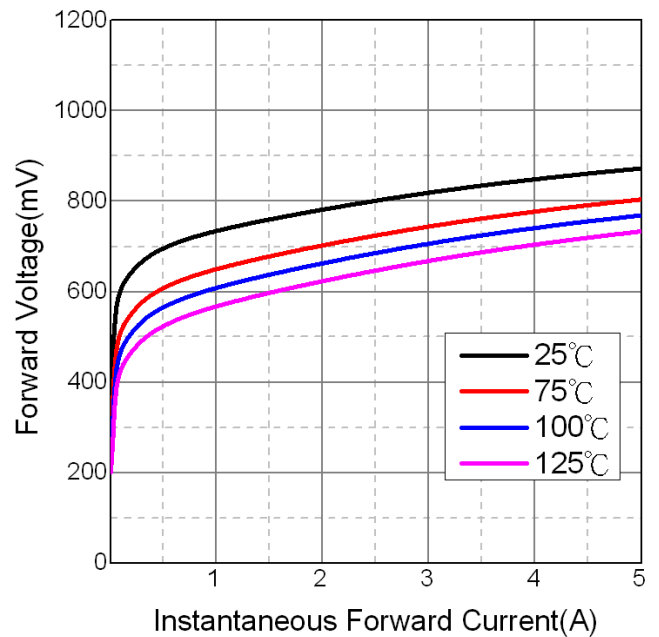
Maximum Non-Repetitive Forward Surge Current



Typical Junction Capacitance



Typical Forward Characteristic



Typical Reverse Characteristic

