

RoHS compliant product
A suffix of "-C" specifies halogen free

FEATURES

- Planar structure with EPI Wafer
- Hyperfast Recovery Time, Reduced Q_{rr} and Soft Recovery
- For PFC CCM Operation
- Low Leakage Current

ITO-220A

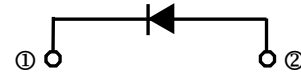


MECHANICAL DATA

- Case: Molded Plastic
- Epoxy: UL94V-0 Rate Flame Retardant
- Lead: Lead Solderable per MIL-STD-202 Method 208 Guaranteed
- Polarity: As Marked
- Mounting Position: Any

ORDER INFORMATION

Part Number	Type
SF08L60F-C	Lead (Pb)-free and Halogen-free



MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	600	V
Maximum RMS Voltage	V_{RMS}	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	8	A
Peak Forward Surge Current @8.3ms half sine-wave	I_{FSM}	65	A
Typical Thermal Resistance Junction-Ambient	$R_{\theta JA}$	7	$^\circ\text{C/W}$
Operating Junction & Storage Temperature Range	T_J, T_{STG}	-55~175	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_J=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Breakdown Voltage	V_{BR}	600	-	-	V	$I_R=100\mu\text{A}$
Instantaneous Forward Voltage	V_F	-	1.27	--	V	$I_F=1\text{A}$
		-	1.95	-		$I_F=5\text{A}$
		-	2	2.4		$I_F=8\text{A}$
		-	0.93	-		$I_F=1\text{A}, T_J=125^\circ\text{C}$
		-	1.51	-		$I_F=5\text{A}, T_J=125^\circ\text{C}$
		-	1.76	-		$I_F=8\text{A}, T_J=125^\circ\text{C}$
Reverse Current	I_R	-	-	10	μA	$V_R=600\text{V}$
Reverse Recovery Time	T_{RR}	-	25	-	nS	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$
		-	20	-		$I_F=1\text{A}, V_R=30\text{V}, di/dt=100\text{A}/\mu\text{s}$
		-	28	-		$I_F=8\text{A}, V_R=400\text{V}, di/dt=200\text{A}/\mu\text{s}$
Peak Recovery Current	I_{RRM}	-	2.2	-	A	$I_F=8\text{A}, V_R=400\text{V}$
Reverse Recovery Charge	Q_{RR}	-	31	-	nC	$di/dt=200\text{A}/\mu\text{s}$

CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

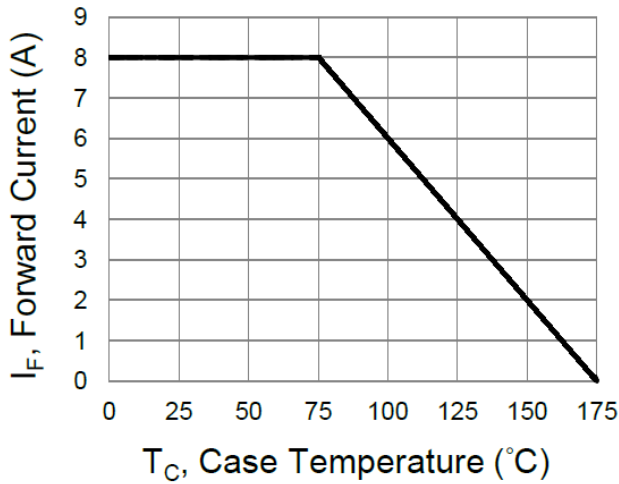


Fig.2 Typical Junction Capacitance

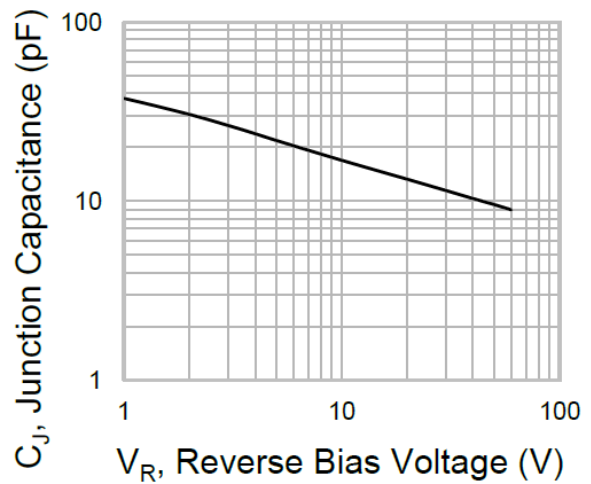


Fig.3 Typical Reverse Characteristics

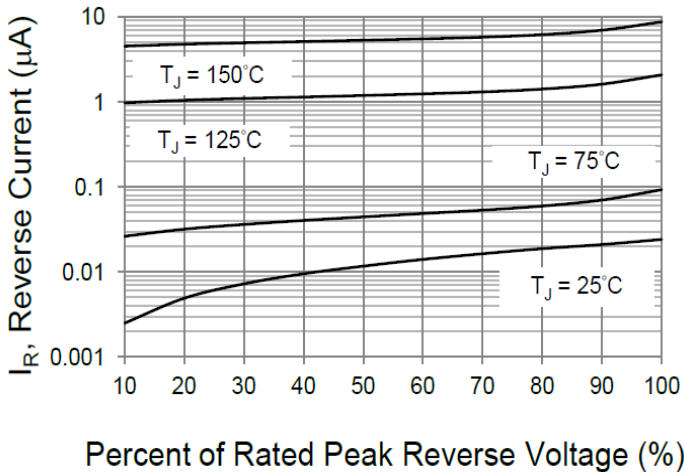


Fig.4 Typical Forward Characteristics

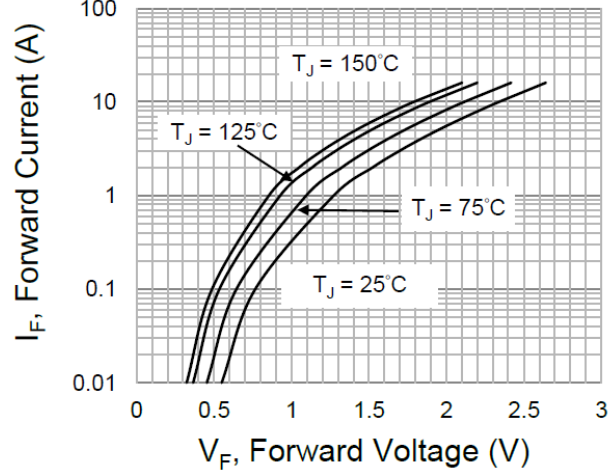


Fig.5 Typical Reverse recovery time versus

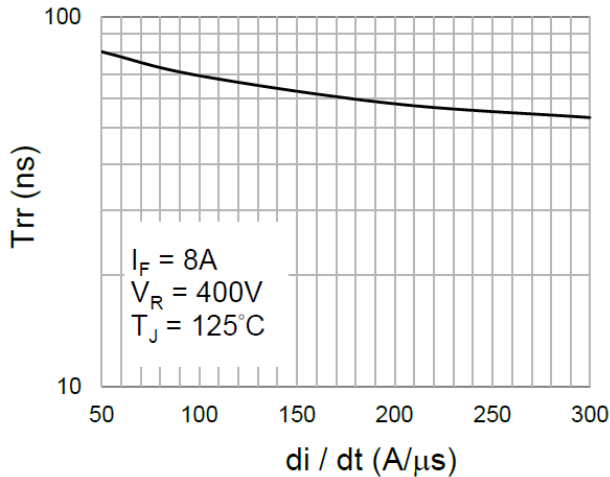
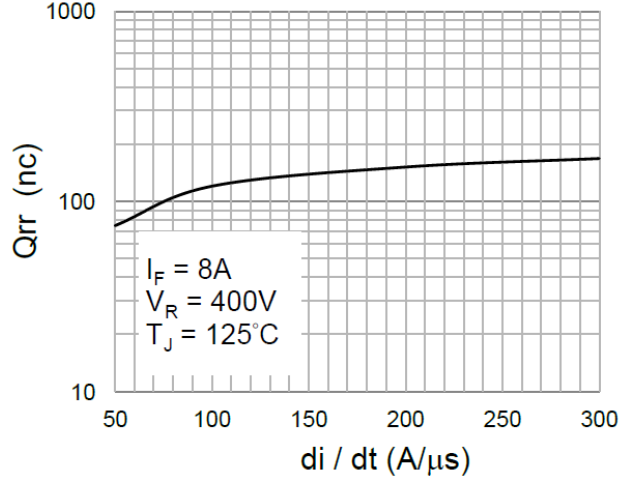
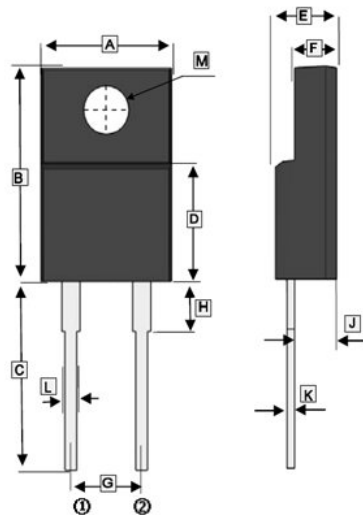


Fig.6 Typical Reverse recovery charges



PACKAGE OUTLINE DIMENSIONS

ITO-220A



REF.	Millimeter	
	Min.	Max.
A	9.50	10.70
B	14.40	15.90
C	12.70	14.20
D	8.40 TYP.	
E	4.20	5.10
F	2.50	3.56
G	3.60	5.90
H	3.30	4.50
J	2.65 TYP.	
K	0.40	0.80
L	0.30	0.90
M	\varnothing 2.60	\varnothing 3.80