

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

FEATURES

- Zero Reverse Recovery Current
- Zero Forward Recovery Voltage
- Positive Temperature Coefficient on V_F
- Temperature-independent Switching
- 175°C Operating Junction Temperature

ITO-220A



MECHANICAL DATA

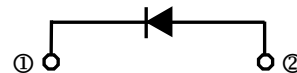
- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any

APPLICATIONS

- Switch Mode Power Supplies
- Power Factor Correction
- Motor Drive, PV Inverter, Wind Power Station

ORDER INFORMATION

Part Number	Type
SIC08X65F-C	Lead (Pb)-free and Halogen-free



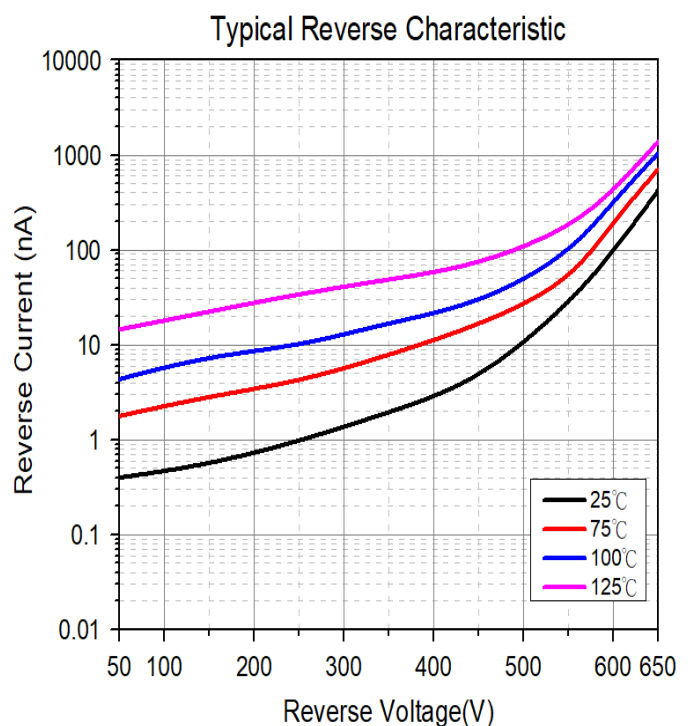
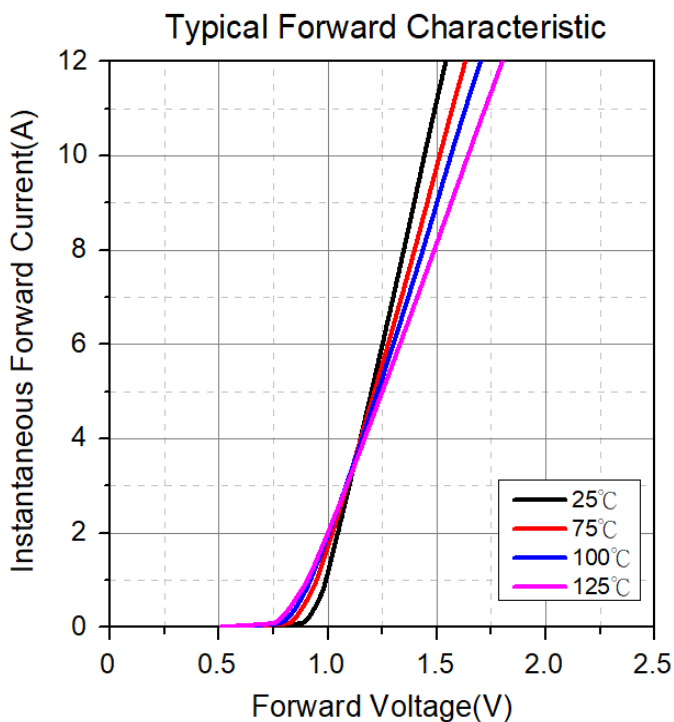
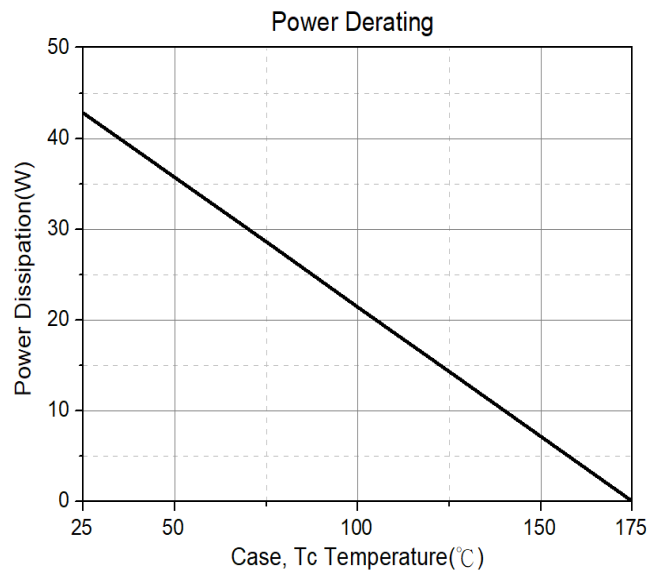
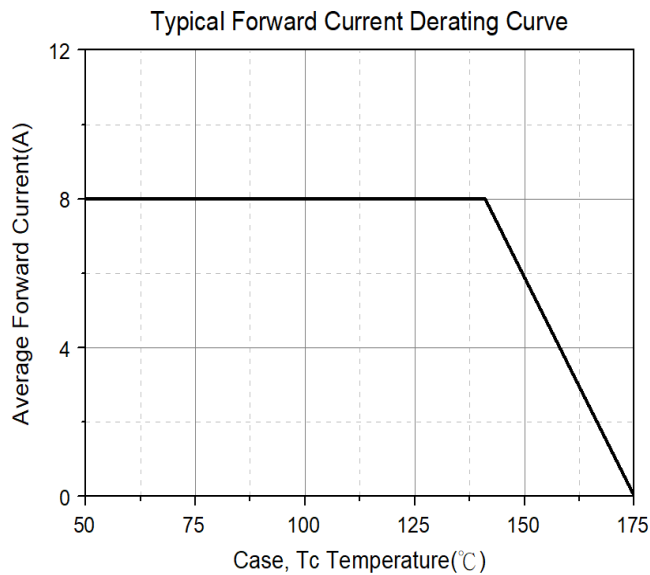
MAXIMUM RATINGS (Rating 25°C Case temperature unless otherwise)

Parameter	Symbol	Rating	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	650	V
Surge Peak Reverse Voltage	V_{RSM}	650	V
DC Blocking Voltage	V_{DC}	650	V
Forward Current	I_F	$T_C \leq 25^\circ\text{C}$	19
		$T_C \leq 125^\circ\text{C}$	11
		$T_C \leq 141^\circ\text{C}$	8
Peak Forward Surge Current @8.3ms half sine-wave	I_{FSM}	70	A
Power Dissipation	P_D	42.8	W
Operating Junction & Storage Temperature Range	T_J, T_{STG}	-55~175	°C
Thermal Resistance Ratings			
Typical Thermal Resistance Junction-Ambient	$R_{\theta JA}$	80	°C/W
Typical Thermal Resistance Junction-Case	$R_{\theta JC}$	3.5	

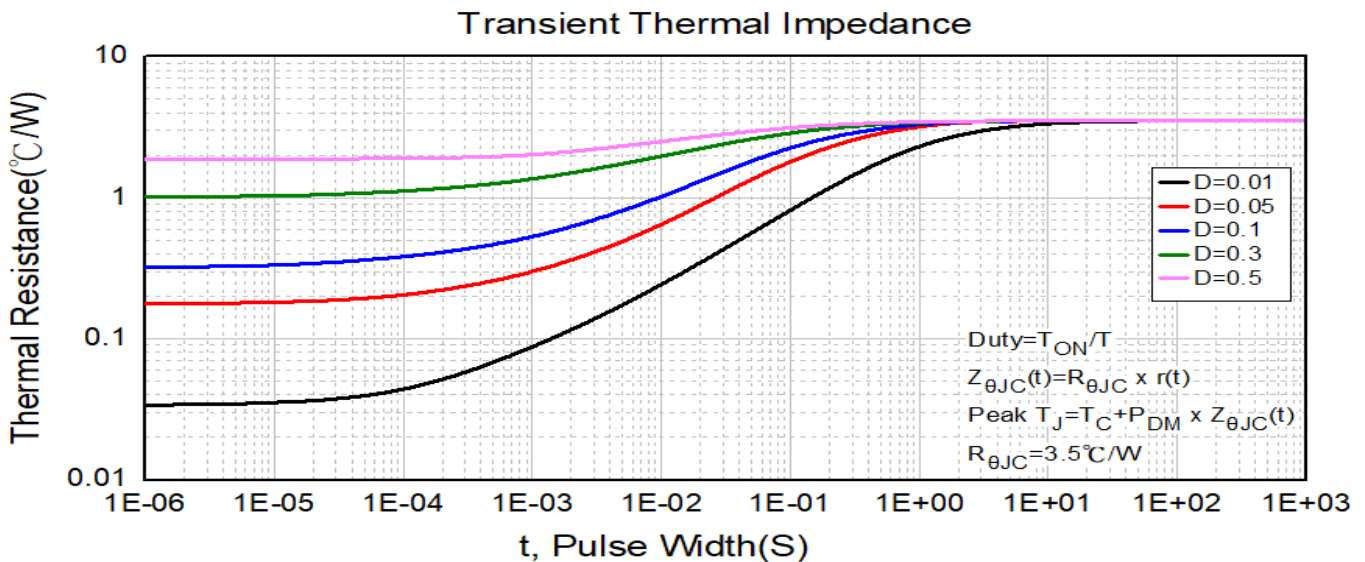
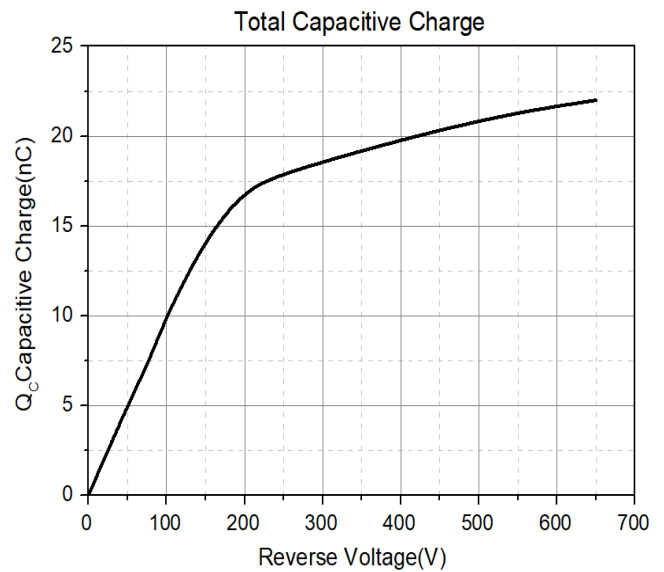
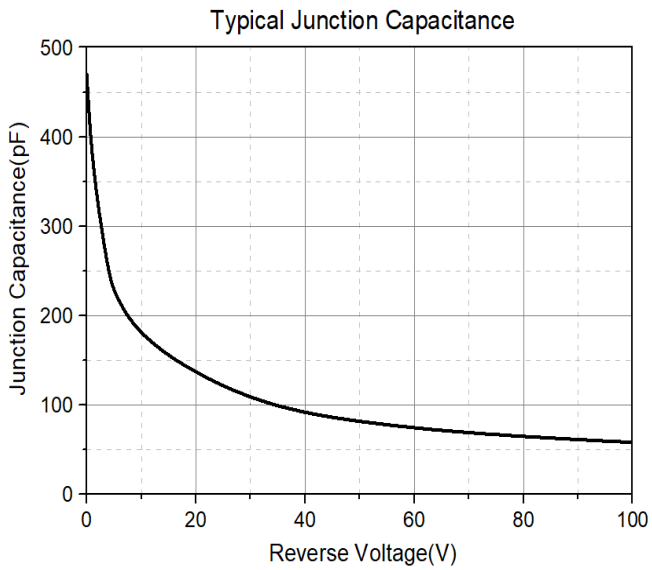
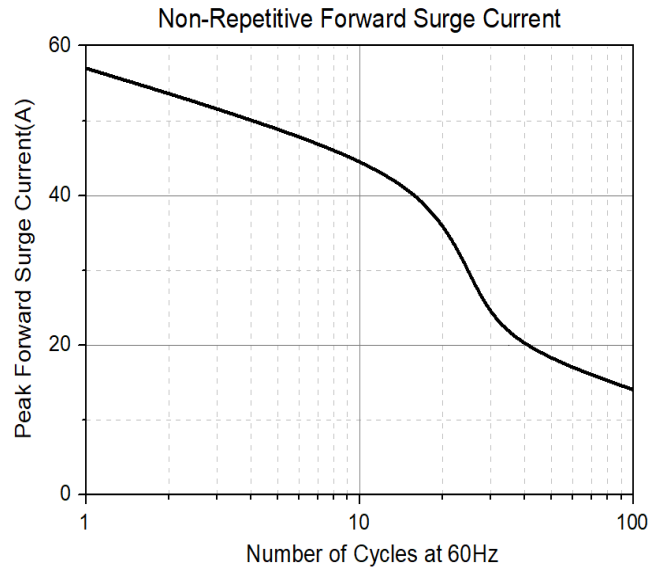
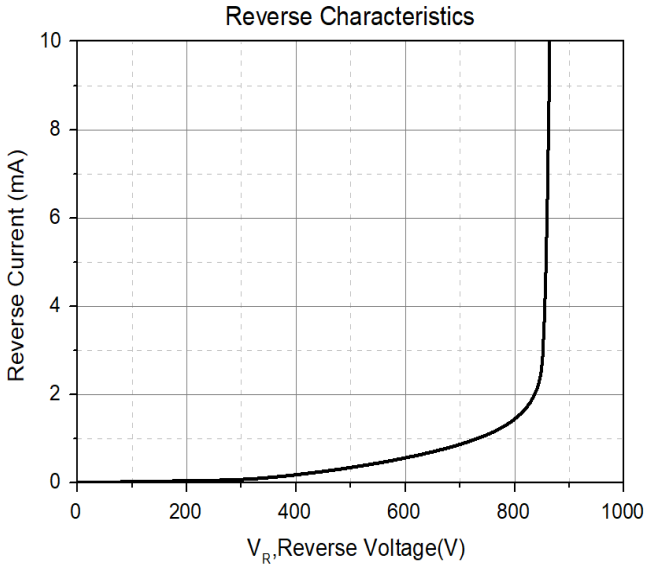
ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Typ.	Max.	Unit	Test Conditions
Forward Voltage	V_F	1.35	1.7	V	$I_F=8A, T_J=25^\circ C$
		1.4	2.4		$I_F=8A, T_J=175^\circ C$
Reverse Current	I_R	0.4	50	μA	$V_R=650V, T_J=25^\circ C$
		-	100		$V_R=650V, T_J=175^\circ C$
Junction Capacitance	C_J	470	-	pF	$V_R=0V, T_J=25^\circ C, f=1MHz$
Total Capacitive Charge	Q_C	17.5	-	nC	$V_R=200V, I_F=8A, di/dt=200A/\mu S, T_J=25^\circ C$

CHARACTERISTIC CURVES

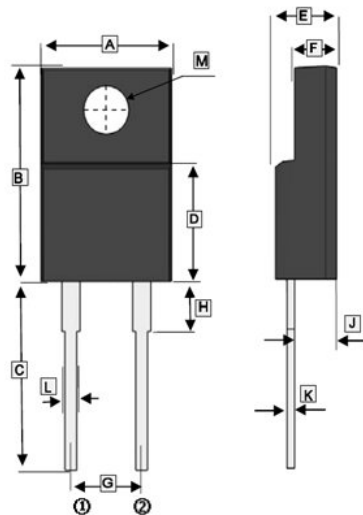


CHARACTERISTIC CURVES



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