

## ITO-220AC Ultra Fast Recovery Diodes 特快恢复二极管

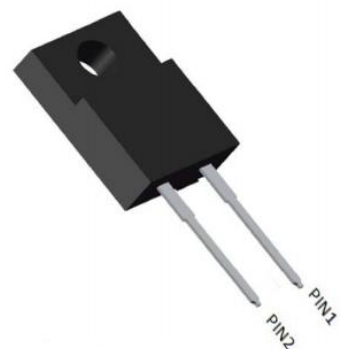
### ■ Features 特点

High Frequency Operation 高频场所  
Low Forward Voltage Drop 低正向压降  
Fast Reverse Recovery Time 快速反向恢复时间

### ■ Applications 应用

Switching Power Supply 开关电源  
Battery Protection 电池保护  
Converters 逆变器

### ■ Internal Schematic Diagram 内部结构



### ■ Absolute Maximum Ratings 最大额定值

Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Repetitive Peak Reverse Voltage 重复峰值反向电压	$V_{RRM}$	600	V
Average Rectified Output Current @60Hz sine wave, R-load, Tc 0-175°C 平均整流电流	$I_O$	12	A
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Tj=25°C 不重复正向浪涌电流	$I_{FSM}$	120	A
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	50	°C/W
Junction Temperature 结温	$T_J$	175	°C
Storage Temperature 储存温度	$T_{stg}$	-55~175	°C

■ **Electrical Characteristics** 电特性

( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

Characteristic Parameters 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位	Condition 条件
Forward Voltage Drop 正向压降	$V_F$		2.4	3.0	V	$I_F=12\text{A}$ $T_j=25^{\circ}\text{C}$
			2.0	2.4	V	$I_F=12\text{A}$ $T_j=150^{\circ}\text{C}$
Reverse Leakage Current 反向漏电流	$I_R$			10	$\mu\text{A}$	$V_R=V_{RRM}$ $T_j=25^{\circ}\text{C}$
			30	200	$\mu\text{A}$	$V_R=V_{RRM}$ $T_j=150^{\circ}\text{C}$
Reverse Recovery Time 反向恢复时间	$T_{rr}$		20	25	nS	$I_F=0.5\text{A}$ $I_{RM}=1\text{A}$ $I_{RR}=0.25\text{A}$ $T_j=25^{\circ}\text{C}$
Reverse Recovery Time 反向恢复时间	$T_{rr}$		34.5		nS	$T_j=25^{\circ}\text{C}$
			66.5			$T_j=125^{\circ}\text{C}$
Peak recovery current 峰值恢复电流	$I_{RRM}$		2.45		A	$I_F=12\text{A}$ $di/dt=-200\text{A}/\mu\text{s}$ $V_{RM}=200\text{V}$
			5.55			
Reverse recovery charge 反向恢复电荷密度	$Q_{rr}$		42.5		nC	$T_j=25^{\circ}\text{C}$
			186.5			$T_j=125^{\circ}\text{C}$
Diode Capacitance 二极管电容	$C_D$		92		pF	$V_R=4\text{V}, f=1\text{MHz}$

■ Typical Characteristic Curve 典型特性曲线

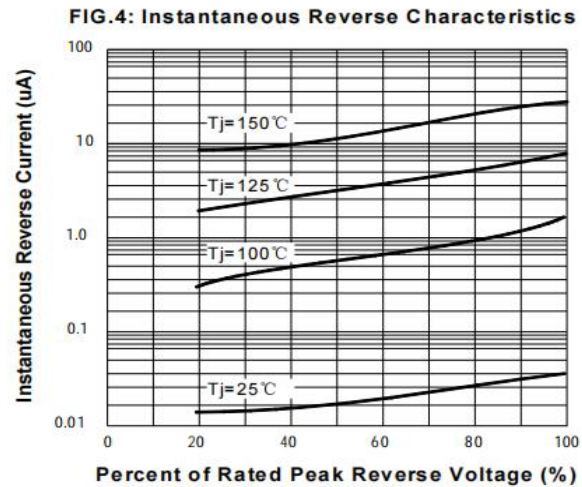
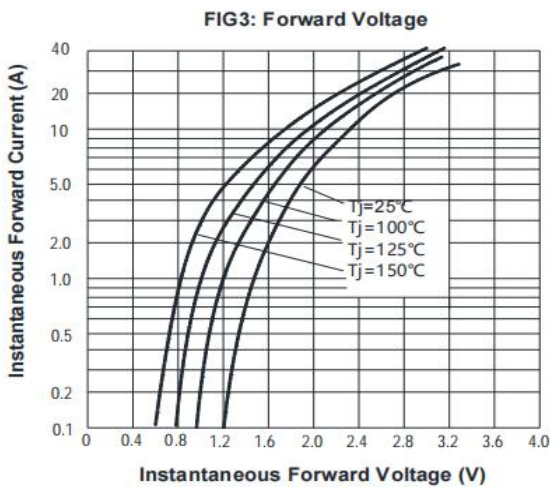
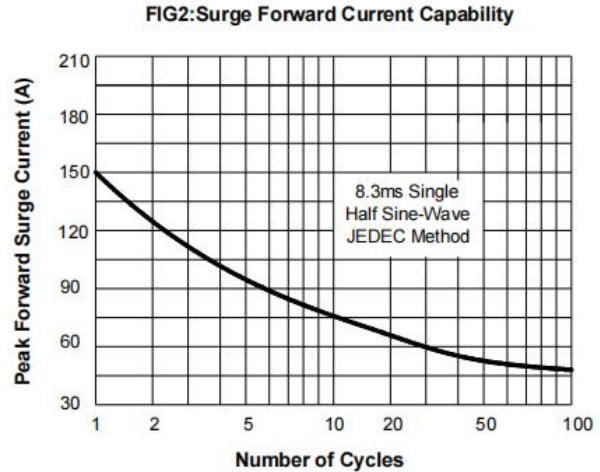
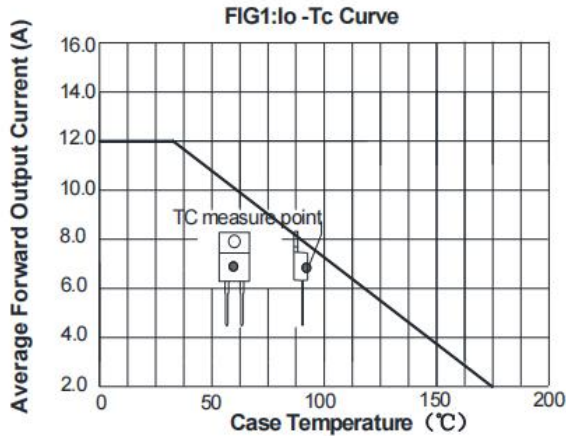
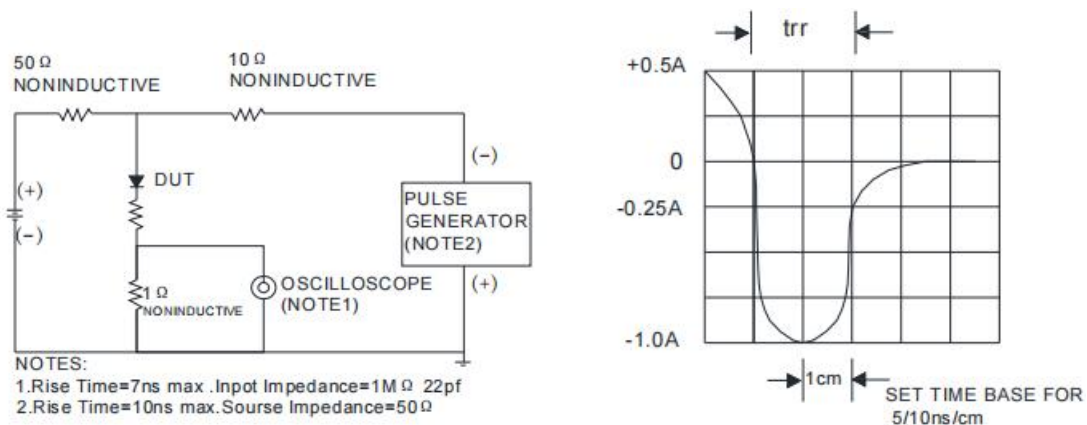
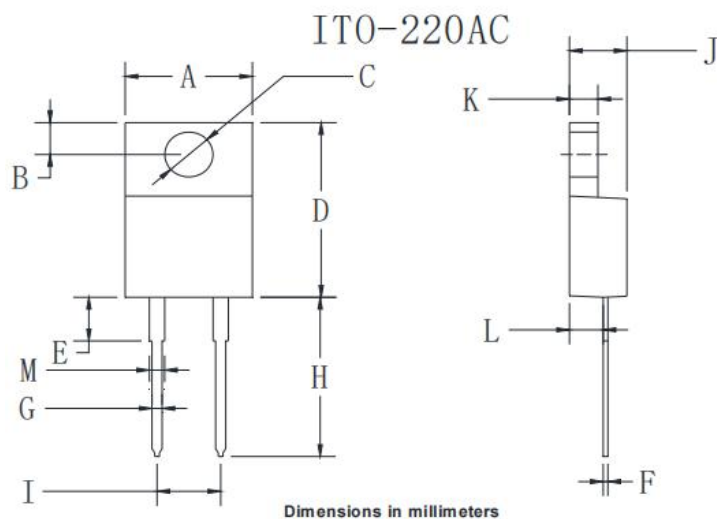


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Dimension 外形封装尺寸



ITO-220AC		
Dim	Min	Max
A	9.7	10.7
B	2.15	3.25
C	2.6	3.8
D	14.4	15.9
E	3.1	4.5
F	0.4	0.8
G	0.4	0.9
H	12.7	14.2
I	3.6	5.9
J	3.9	5.1
K	2.1	3.56
L	2.1	3.2
M	1.0	1.8