

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

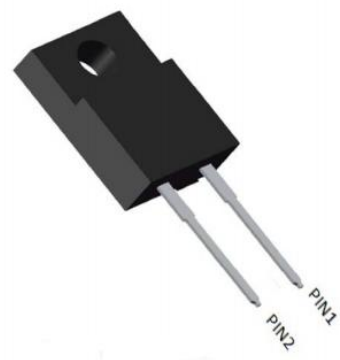
■Applications 应用

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°C unless otherwise noted 如无特殊说明, 温度为 25°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 =12A T _j =25°C	
			2.0	2.4	V	I _F =12A T _j =150°C	
Reverse Leakage Current 反向漏电流	I _R			10	μA	V _R =V _{RRM} T _j =25°C	
			30	200	μA	V _R =V _{RRM} T _j =150°C	
Reverse Recovery Time 反向恢复时间	T _{rr}		20	25	nS	I _F =0.5A I _{RM} =1A I _{RR} =0.25A T _j =25°C	
Reverse Recovery Time 反向恢复时间	T _{rr}		34.5		nS	T _j =25°C	I _F =12A di/dt= -200A/us V _{RM} = 200V
			66.5			T _j =125°C	
Peak recovery current 峰值恢复电流	I _{RRM}		2.45		A	T _j =25°C	
			5.55			T _j =125°C	
Reverse recovery charge 反向恢复电荷密度	Q _{rr}		42.5		nC	T _j =25°C	
			186.5			T _j =125°C	
Diode Capacitance 二极管电容	C _D		92		pF	V _R =4V,f=1MHz	

■ Typical Characteristic Curve 典型特性曲线

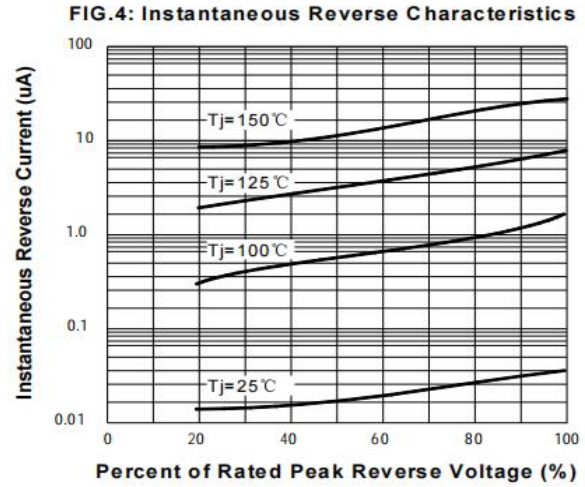
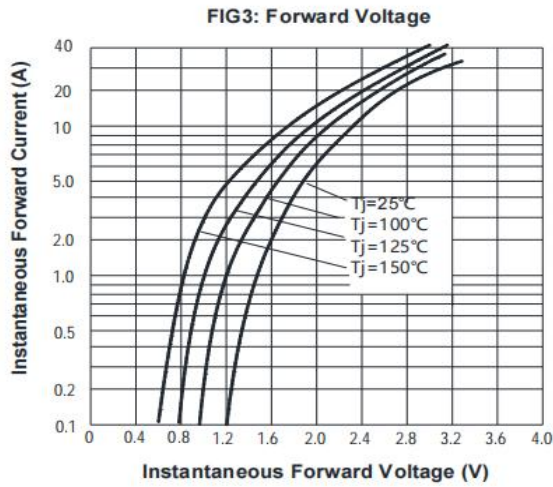
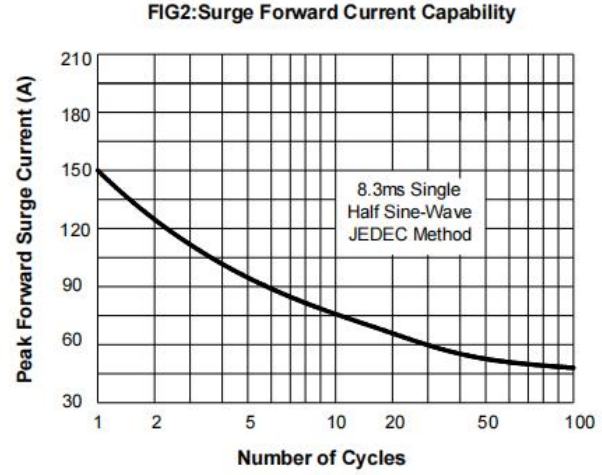
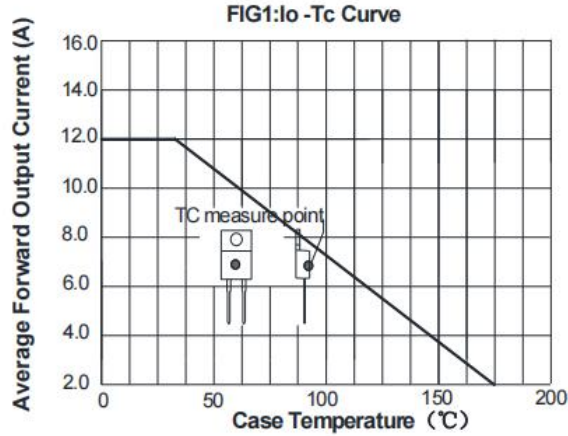
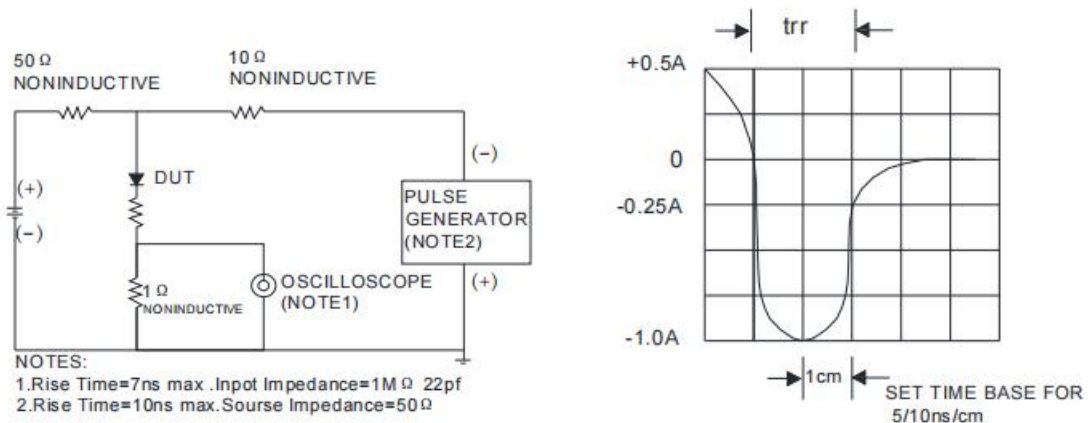
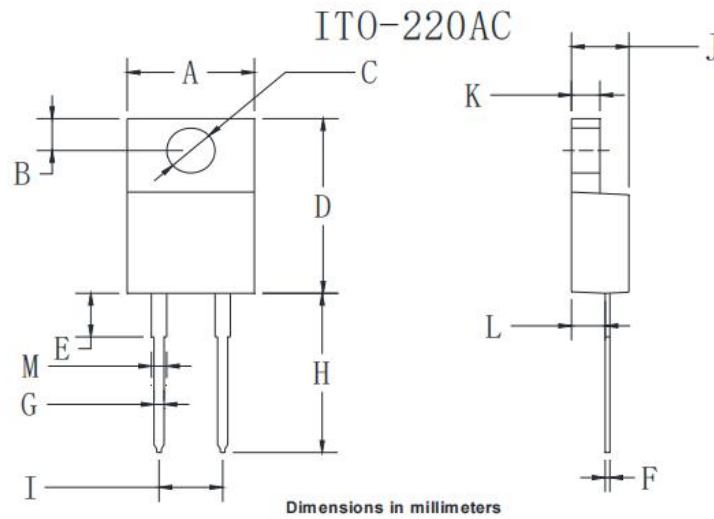


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ **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