

描述 / Descriptions

TO-220AC 塑封封装 超快恢复二极管。

Ultrafast Recovery Diode in a TO-220AC Plastic Package.

特征 / Features

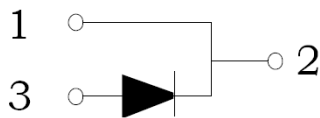
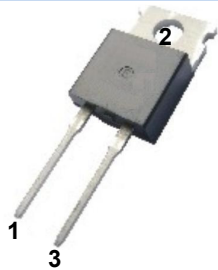
超快恢复时间, 软恢复特性, 恢复损耗低, 低正向电压, 高浪涌电流能力, 低漏电流。

Ultrafast Recovery Time, Soft Recovery Characteristics, Low Recovery Loss, Low Forward Voltage, High Surge Current Capability, Low Leakage Current.

用途 / Applications

适用于续流, 缓冲, 钳位, 反转焊机, 电镀电源, 超声波清洗机和焊接机, 转换器, UPS。

Freewheeling, Snubber, Clamp, Inversion Welder, Plating Power Supply, Ultrasonic Cleaner and Welder, Converter, UPS.

内部等效电路 / Equivalent Circuit**引脚排列 / Pinning**

PIN1、2 : Cathode

PIN 3 : Anode

放大及印章代码 / h_{FE} Classifications & Marking

见印章说明。See Marking Instructions.

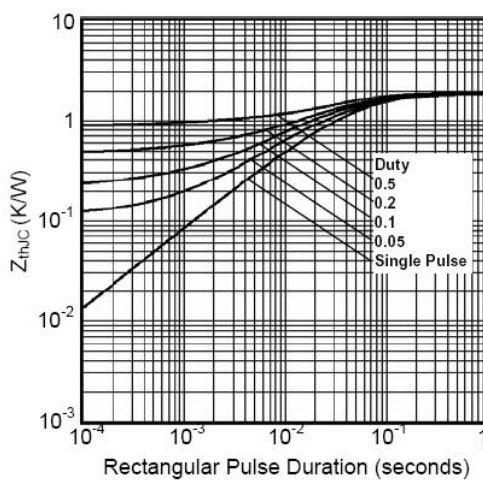
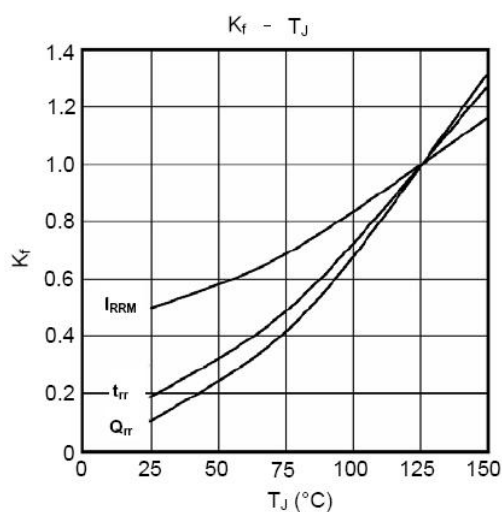
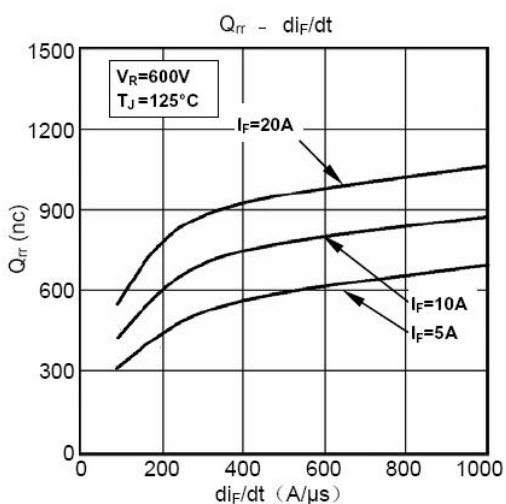
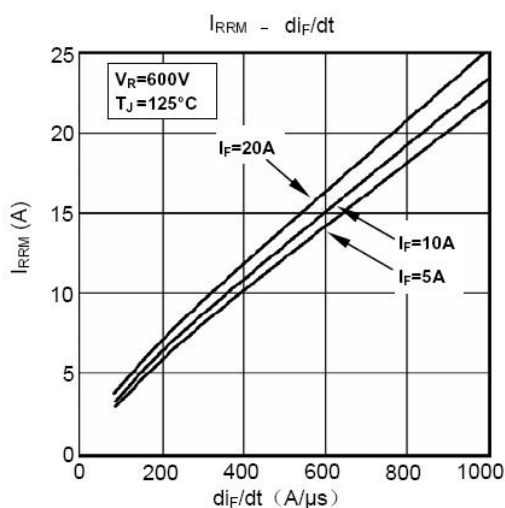
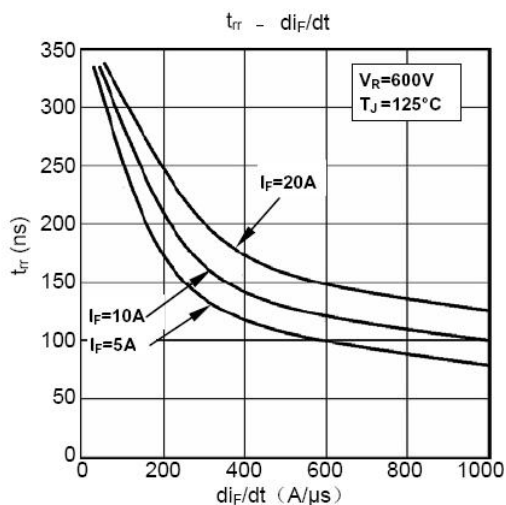
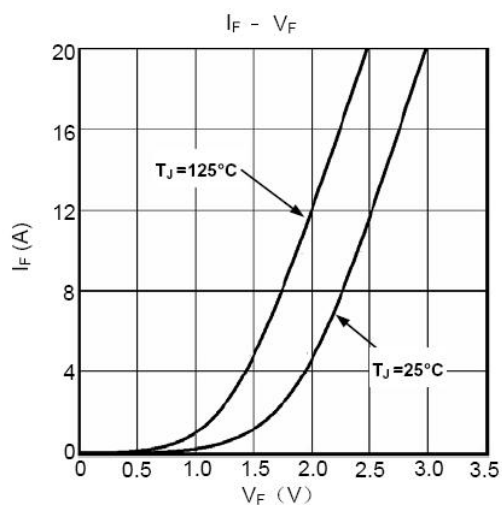

极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Peak Repetitive Reverse Voltage	V_{RRM}	1200	V
Peak Reverse Voltage	V_R	1200	V
Average Rectified Forward Current	$I_{F(AV)}$ ($T_c=110^\circ\text{C}$)	10	A
Average Rectified Forward Current(RMS)	$I_{F(RMS)}$ ($T_c=110^\circ\text{C}$)	15	A
Non Repetitive Peak Surge Current	I_{FSM}	100	A
Power Dissipation	P_D	70	W
Thermal Resistance Junction to Case	$R_{\theta JC}$	1.8	$^\circ\text{C/W}$
Junction and Storage Temperature Range	T_j, T_{stg}	-55~150	$^\circ\text{C}$

电性能参数 / Electrical Characteristics(Ta=25°C)

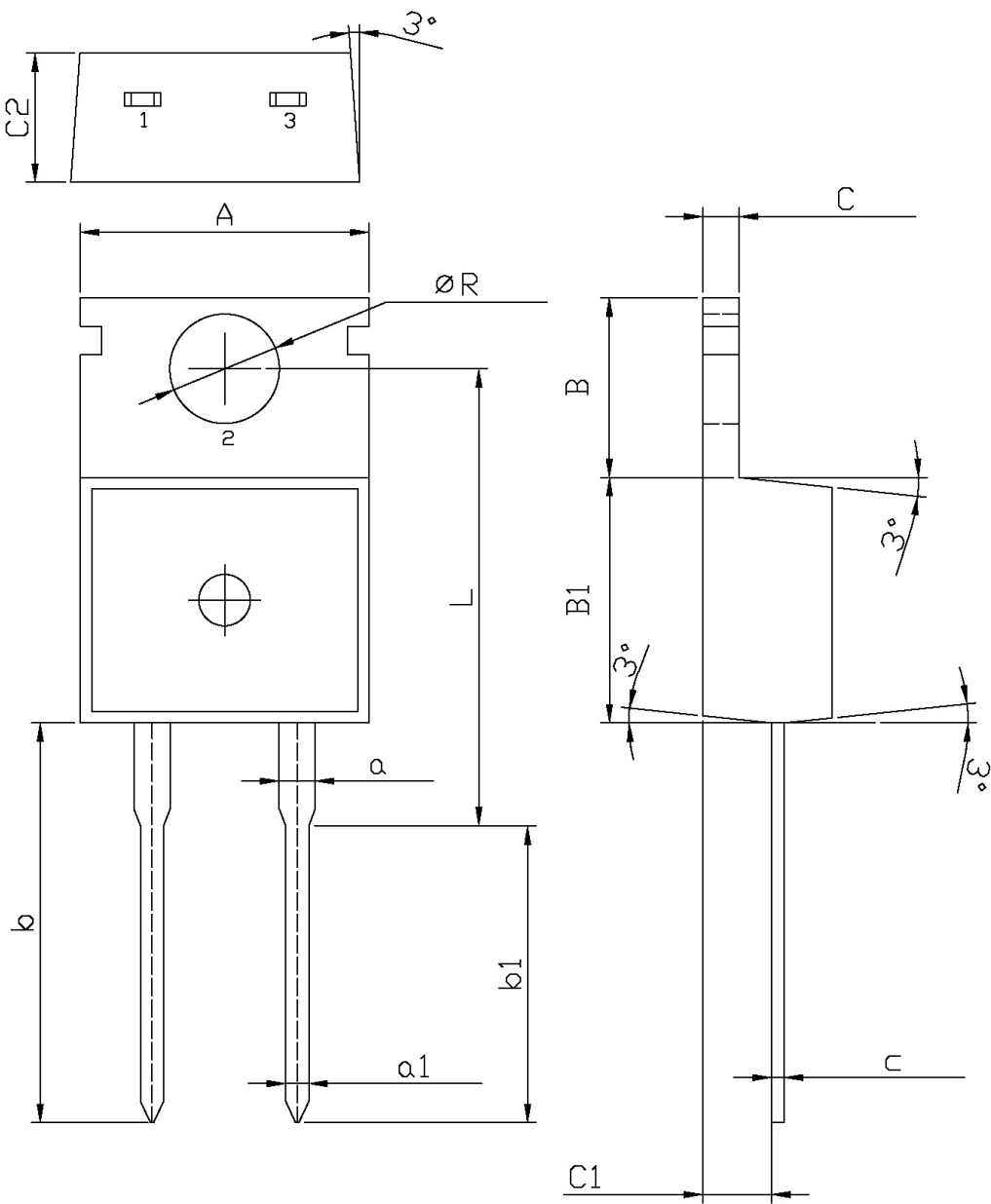
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Forward Voltage	V_F	$I_F=10\text{A}$		2.4		V
		$I_F=10\text{A}$ $T_j=125^\circ\text{C}$		1.85		V
Maximum Instantaneous Reverse Current	I_{RM}	$V_R=1200\text{V}$			100	μA
		$V_R=1200\text{V}$ $T_c=125^\circ\text{C}$			500	μA
Reverse Recovery Time	t_{rr}	$I_F=1\text{A}$, $V_R=30\text{V}$, $diF/dt=-200\text{A}/\mu\text{s}$		22		ns
Reverse Recovery Time	t_{rr}	$V_R=600\text{V}$, $I_F=10\text{A}$ $diF/dt=-200\text{A}/\mu\text{s}$		44		ns
Peak Repetitive Reverse Current	I_{RRM}	$T_j=25^\circ\text{C}$		3.5		A
Reverse Recovery Time	t_{rr}	$V_R=600\text{V}$, $I_F=10\text{A}$ $diF/dt=-200\text{A}/\mu\text{s}$		220		ns
Peak Repetitive Reverse Current	I_{RRM}	$T_j=125^\circ\text{C}$		6.5		A

电参数曲线图 / Electrical Characteristic Curve



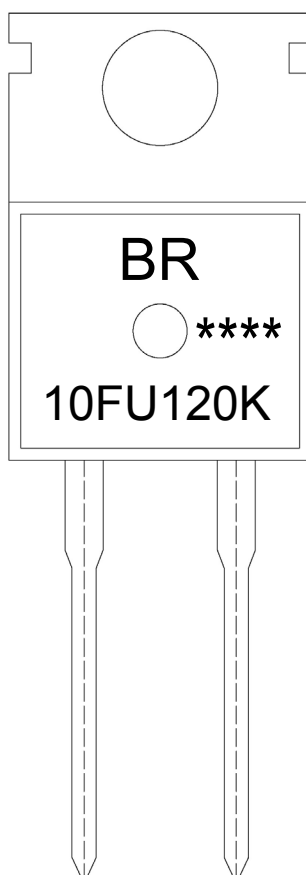
外形尺寸图 / Package Dimensions

TO-220AC Unit:mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	9.8	10.2	B	6.3	6.7
R	3.56	3.64	B1	9.0	9.4
L	15.7	16.1	C1	2.2	2.6
b	12.6	13.6	C	1.2	1.4
b1	9.6	10.6	c	0.4	0.6
a	1.22	1.32	C2	4.3	4.7
a1	0.7	0.9			

印章说明 / Marking Instructions



说明：

BR： 为公司代码

10FU120K： 为型号代码

****： 为生产批号代码，随生产批号变化。

Note:

BR: Company Code

10FU120K: Product Type Code.

****: Lot No. Code, code change with Lot No.

波峰焊温度曲线图(无铅) / Temperature Profile for Dip Soldering(Pb-Free)



说明：

- 1、预热温度 25 ~ 150°C，时间 60 ~ 90sec;
- 2、峰值温度 255±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:25~150°C, Time:60~90sec.
- 2.Peak Temp.:255±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：270±5°C

时间：10±1 sec.

Temp.:270±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

散件包装 / BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
TO-220/F/AC	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

套管包装 / TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-220/F/AC	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

使用说明 / Notices