

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

极快的恢复时间，采用 TO-220AC 封装，极低的正向压降，极小的反向漏电流，600V 耐压。

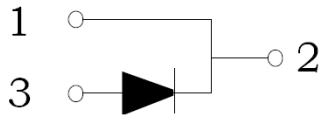
Ultrafast recovery time, popular TO-220AC package, low forward voltage, low leakage current, reverse voltage to 600V.

用途 / Applications

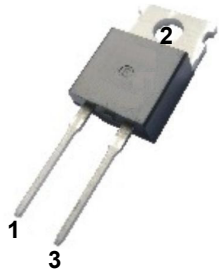
该产品可用于高频脉宽调制电路中的输出整流和续流，因其具有反向恢复电荷少恢复时间快的特点，所以能明显减少电路的开关损耗。

These devices are intended for output rectifiers and flywheel diodes in a variety of high-frequency pulse-width modulated switching regulators. Their low stored charge and attendant fast reverse-recovery behavior minimize electrical noise generation and in many circuits markedly reduce the turn-on dissipation of associated power switching transistors.

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

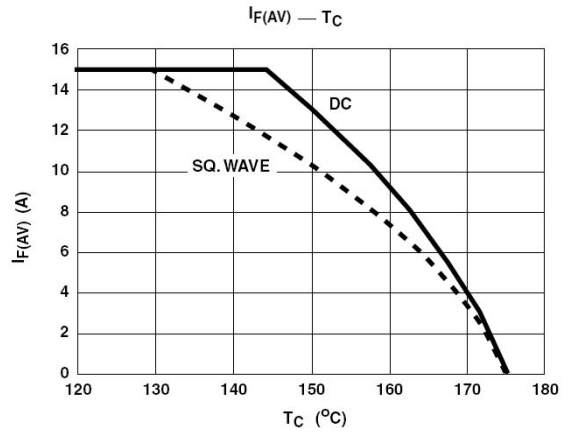
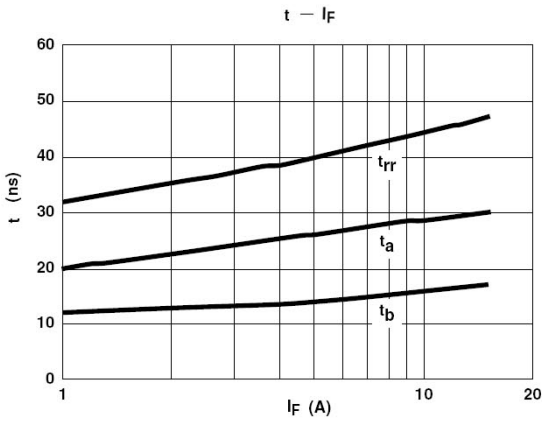
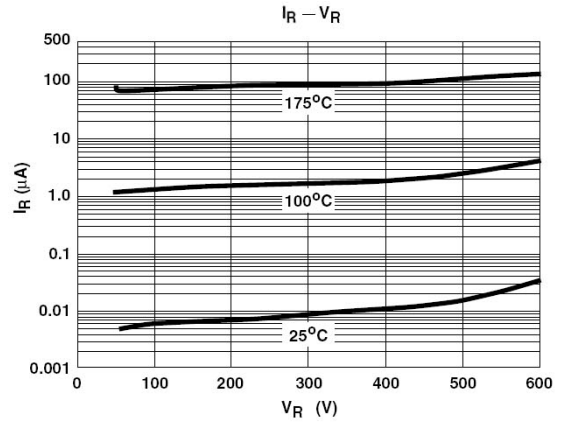
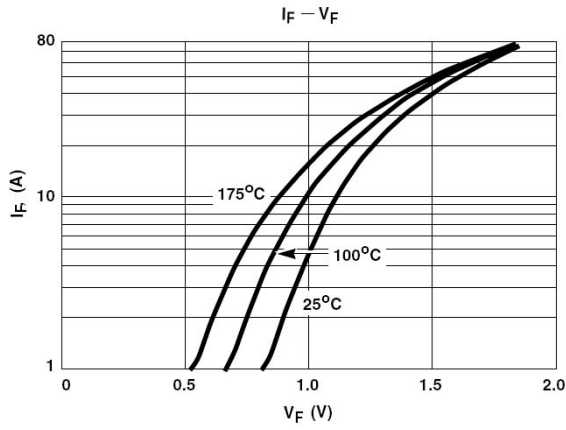
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
Working Peak Reverse Voltage	V_{RWM}	600	V
DC Blocking Voltage	V_R	600	V
Average Forward Current	I_F	15	A
Non Repetitive Peak Surge Current	I_{FRM}	30	A
Peak forward surge current	I_{FSM}	200	A
Power Dissipation	$P_C(T_C=25^\circ\text{C})$	100	W
Typical Thermal Resistance Junction to Case	$R_{\theta Jc}$	1.5	$^\circ\text{C}/\text{W}$
Junction Temperature Range	T_j	150	$^\circ\text{C}$
Storage Temperature Range	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	$I_F=15\text{A}$			1.5	V
		$I_F=15\text{A}$ $T_C=150^\circ\text{C}$			1.2	V
Instantaneous Reverse Current	I_R	$V_R=600\text{V}$			100	μA
		$V_R=600\text{V}$ $T_C=150^\circ\text{C}$			500	μA
Reverse Recovery Time	t_{rr}	$I_F=1\text{A}$ $dI_F/dt=100\text{A}/\mu\text{S}$			55	ns
		$I_F=15\text{A}$ $dI_F/dt=100\text{A}/\mu\text{S}$			60	ns
Time To Reach Peak Reverse forward current	t_a	$I_F=15\text{A}$ $dI_F/dt=100\text{A}/\mu\text{S}$		30		ns
Time From Peak IRM Projected zero crossing of IRM based on a straight line peak through 25%	t_b	$I_F=15\text{A}$ $dI_F/dt=100\text{A}/\mu\text{S}$		20		ns

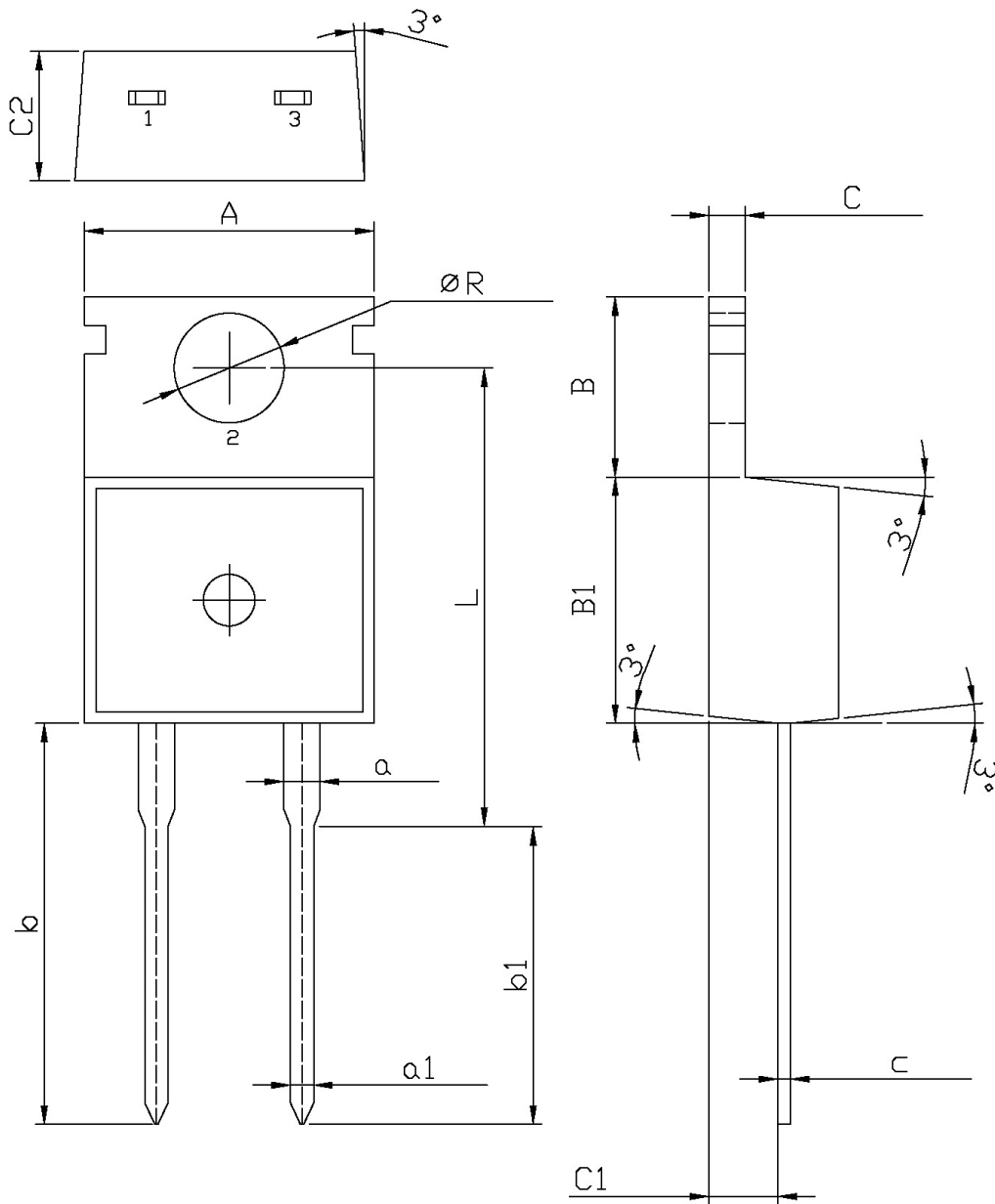
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

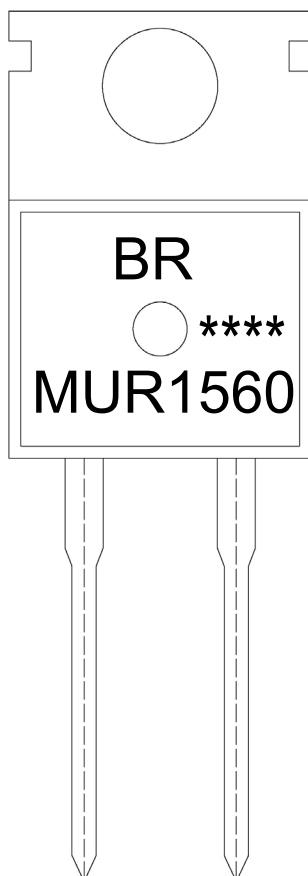
TO-220AC

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

MUR1560： 为产品型号

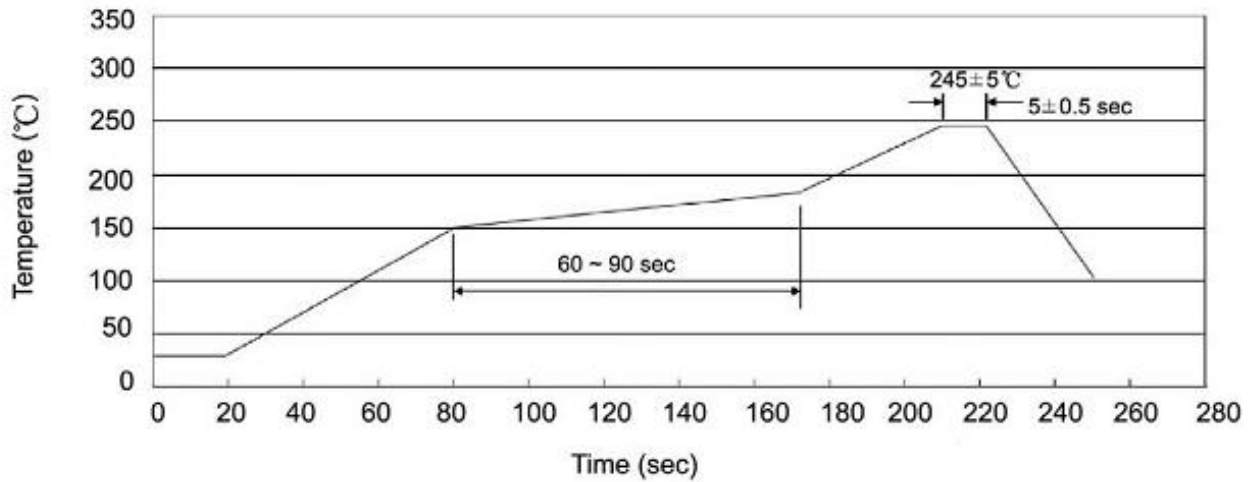
****： 为生产批号代码，随生产批号变化。

Note:

BR: Company Code

MUR1560： Product Type.

****: 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 150~180°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:150~180°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