

# BRMUR15120AC

Rev.B Jan.-2019

## 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。

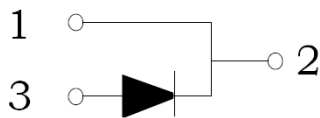
Ultrafast Recovery Time, Soft Recovery Characteristics, Low Recovery Loss, Low Forward Voltage, High Surge Current Capability, Low Leakage Current.

## 用途 / Applications

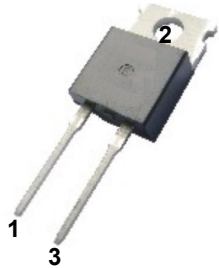
适用于续流, 缓冲, 钳位, 反转焊机, 电镀电源, 超声波清洗机和焊接机, 转换器, UPS。

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.

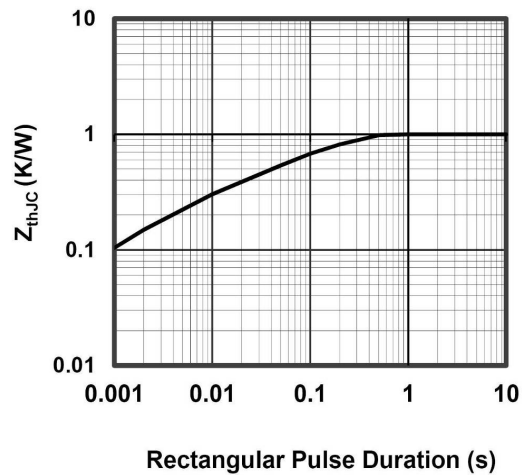
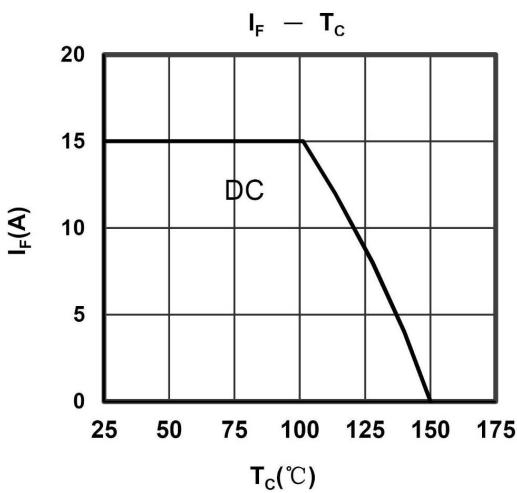
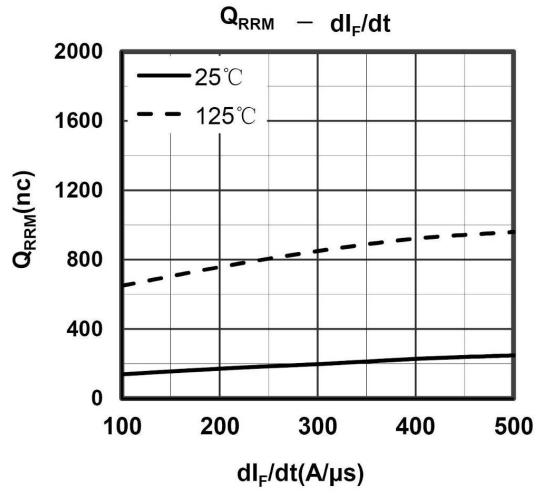
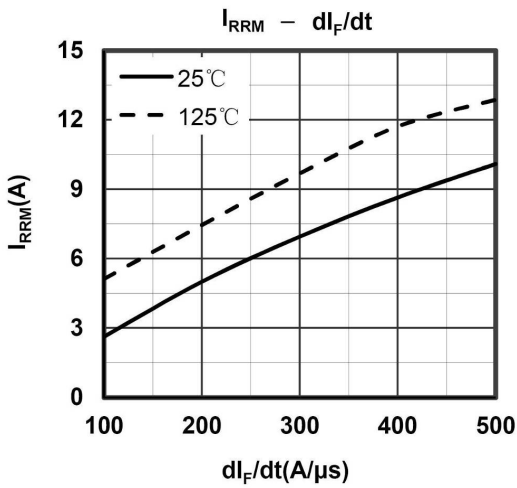
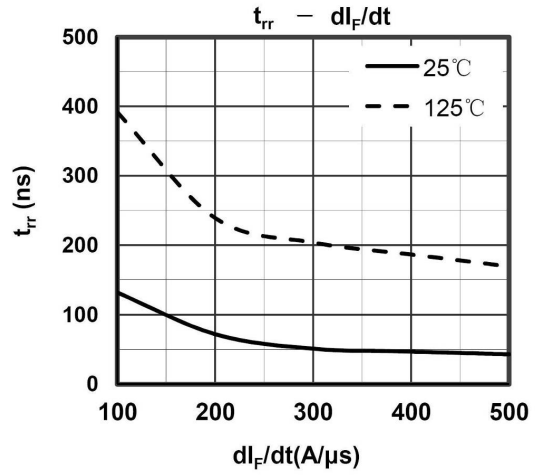
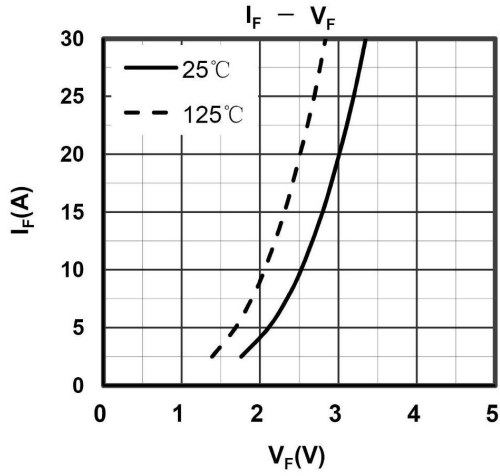
**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

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	$I_{F(AV)}$ ( $T_c=110^\circ\text{C}$ )	15	A
Average Rectified Forward Current(RMS)	$I_{F(RMS)}$ ( $T_c=110^\circ\text{C}$ )	21	A
Non Repetitive Peak Surge Current( $T_J=45^\circ\text{C}$ , $t=10\text{ms}$ , 50Hz, Sine)	$I_{FSM}$	150	A
Power Dissipation	$P_D$	125	W
Thermal Resistance Junction to Case	$R_{\theta JC}$	1.0	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	-55~+150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55~+125	$^\circ\text{C}$

**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	$V_F$	$I_F=15\text{A}$		2.8	3.2	V
		$I_F=15\text{A}$ $T_J=125^\circ\text{C}$		2.3		V
Maximum Instantaneous Reverse Current	$I_{RM}$	$V_R=1200\text{V}$			10	$\mu\text{A}$
		$V_R=1200\text{V}$ $T_J=125^\circ\text{C}$			1	mA
Reverse Recovery Time	$t_{rr}$	$I_F=1\text{A}$ $V_R=30\text{V}$ $diF/dt=-200\text{A}/\mu\text{s}$		25	30	ns
		$I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{RR}=0.25\text{A}$		35	40	ns
		$V_R=600\text{V}$ $I_F=15\text{A}$ $diF/dt=-200\text{A}/\mu\text{s}$		72		ns
Peak Repetitive Reverse Current	$I_{RRM}$	$V_R=600\text{V}$ $I_F=15\text{A}$ $diF/dt=-200\text{A}/\mu\text{s}$		5.0		A
Reverse Recovery Time	$t_{rr}$	$V_R=600\text{V}$ , $I_F=15\text{A}$ $diF/dt=-200\text{A}/\mu\text{s}$ ,		240		ns
Peak Repetitive Reverse Current	$I_{RRM}$	$T_J=125^\circ\text{C}$		7.5		A

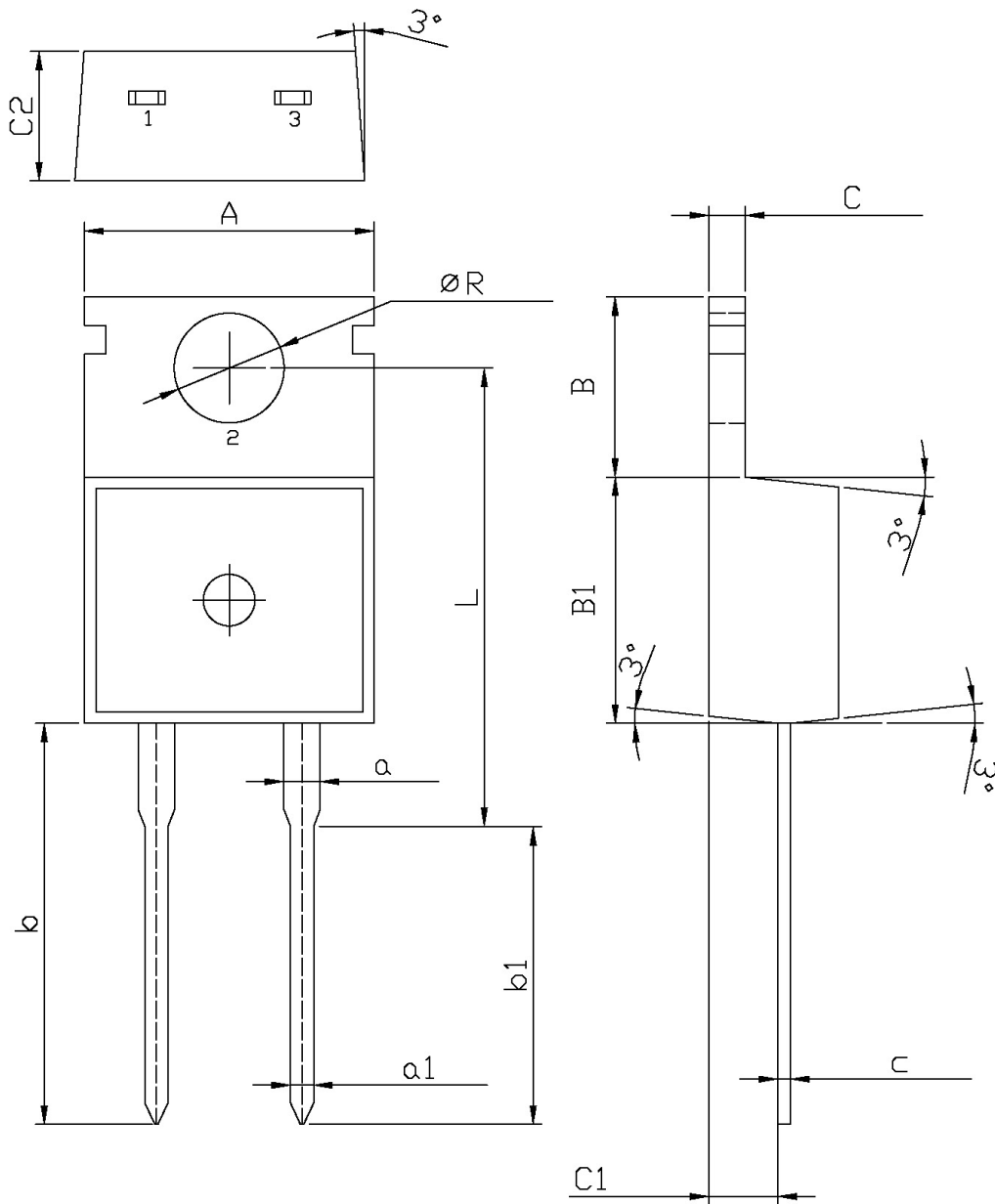
## 电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

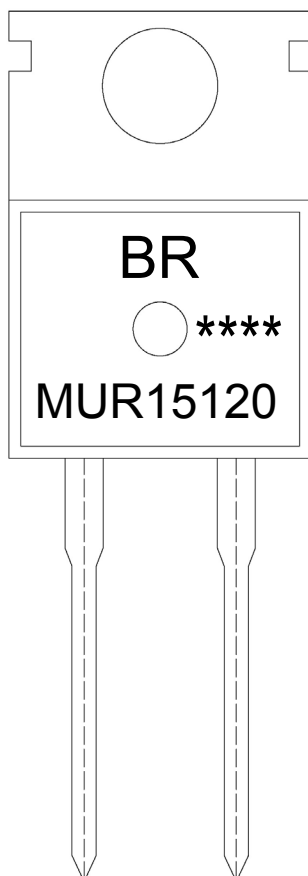
TO-220AC

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

MUR15120： 为型号代码

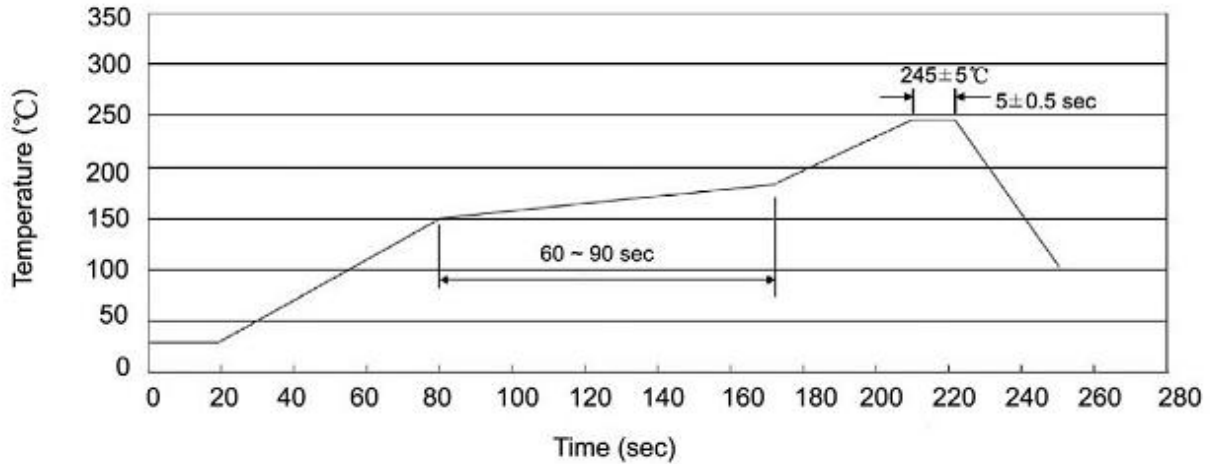
\*\*\*\*： 为生产批号代码，随生产批号变化。

Note:

BR: Company Code

MUR15120: 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 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 <sup>3</sup> )		
	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 <sup>3</sup> )		
	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**