

BRMUR30650ACQ

Rev.A Mar.-2024

描述 / Descriptions

TO-220AC 塑封封装超快恢复二极管。
Fast Recovery Epi Diodes in a TO-220AC Plastic Package.

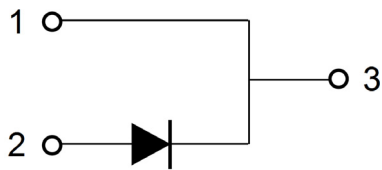
特征 / Features

高频运行，高浪涌正向电流能力，符合 AEC-Q101 标准高可靠性要求，无卤产品。
High frequency operation, High surge forward current capability, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

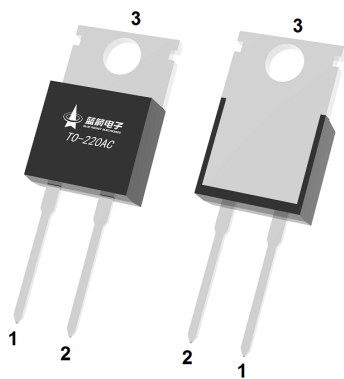
用途 / Applications

用于高频、高压、大电流整流二极管，续流二极管，满足汽车应用的严格要求。
For high frequency, high voltage, high current rectifier diode, freewheeling diode, Meet the stringent requirements of automotive applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN 1,3 : Cathode PIN2 : Anode

印章代码 / 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}	650	V
Continuous Forward Current	I_F	30	A
Reverse recovery peak current	$I_{RM}, I_F=30A$ $V_R=200V$ $di/dt=200A/us$	3.1	
Non-repetitive forward surge current	$I_{FSM}, tp=8.3ms$	200	
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	75	°C / W
Thermal Resistance Junction to Case	$R_{\theta Jc}$	3	°C / W
Junction Temperature Range	T_j	-55~150	°C
Storage Temperature Range	T_{stg}		

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
Reverse Voltage	V_R	$I_R=100uA$	660	700	-	V
Forward Voltage		$I_F=30A$ $T_C=25^\circ C$	1.5	1.75	2.0	
Instantaneous Reverse Current	I_R	$V_R=650V$ $T_a=25^\circ C$	-	50	1000	nA
Reverse Recovery Time	t_{rr}	$I_F=0.5A$ $I_R=1.0A$ $I_{RR}=0.25A$	30	40	50	ns

电参数曲线图 / Electrical Characteristic Curve

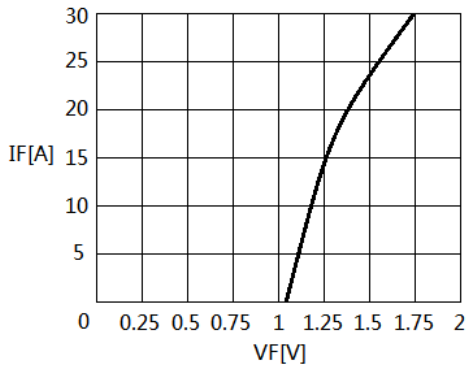


Figure 1 Forward Characteristics

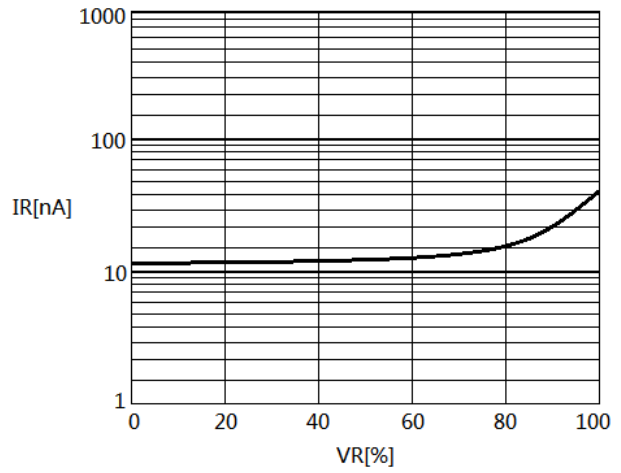


Figure 2 Reverse Characteristics

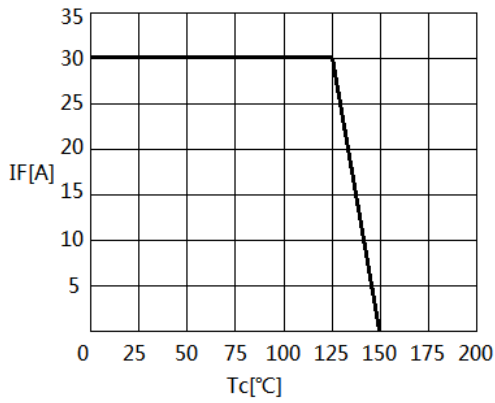
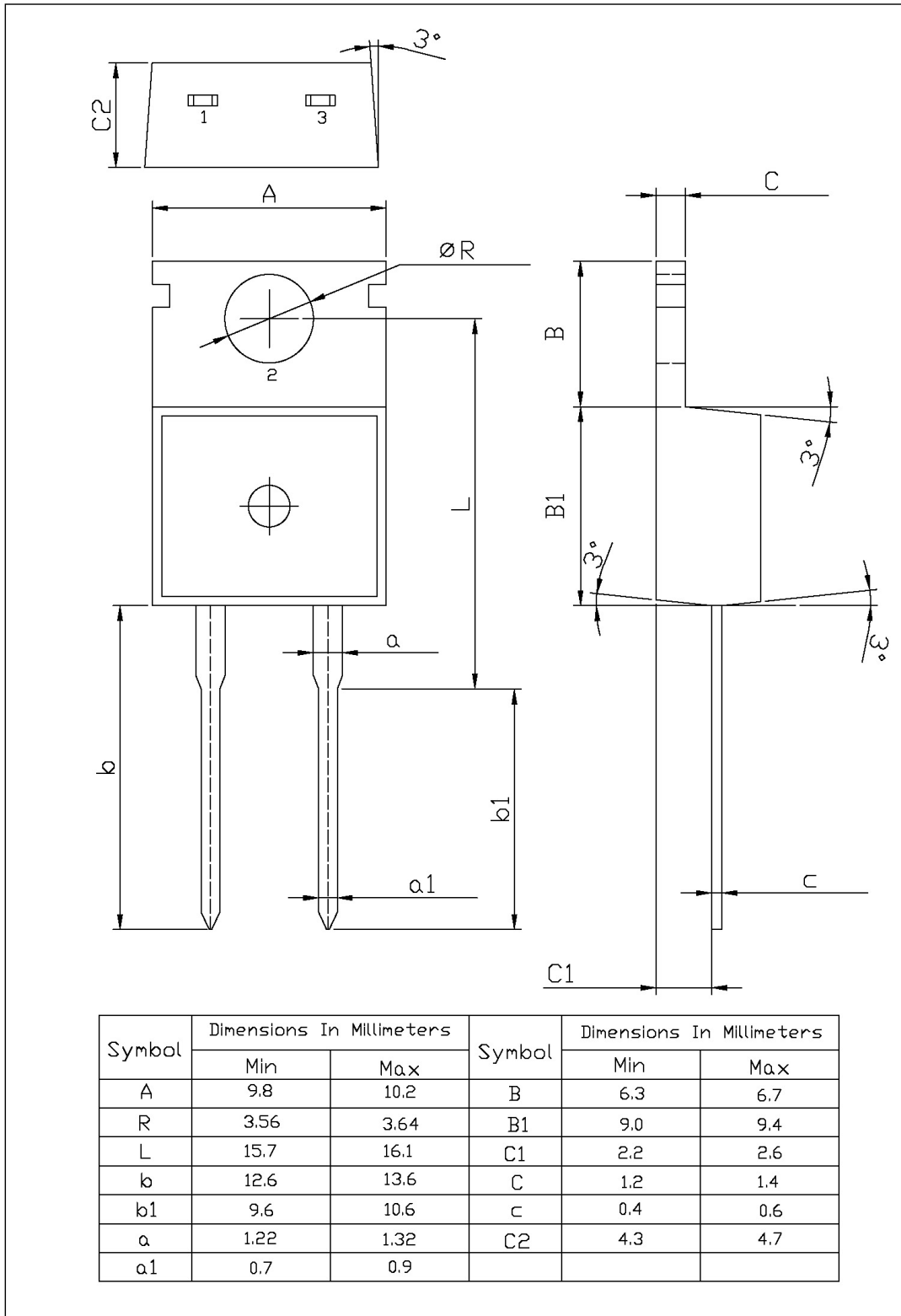


Figure 3 Peak Forward Current Derating

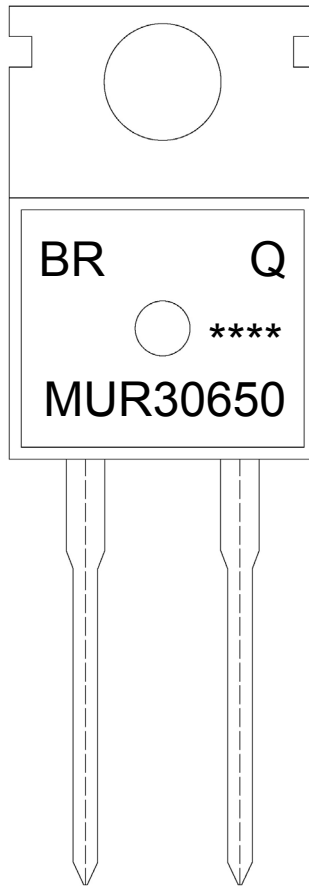
外形尺寸图 / Package Dimensions

TO-220AC

Unit:mm



印章说明 / Marking Instructions



说明：

BR： 为公司代码

Q： 为汽车无卤产品标识

MUR30650： 为产品型号

****： 为生产批号代码，随生产批号变化

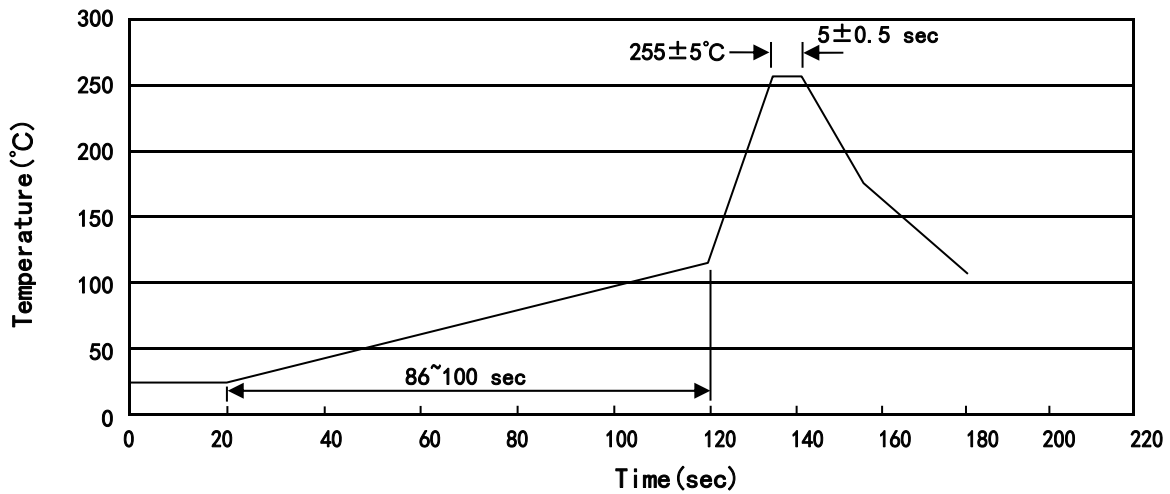
Note:

BR: Company Code

Q: Automobile halogen-free product Code

MUR30650: 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/FAC	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/FAC	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

使用说明 / Notices