

MUR1620CT

Rev.H Jul.-2018

/ Descriptions

KO\$))'

Ultrafast Recovery Diode in a TO-220 Plastic Package.

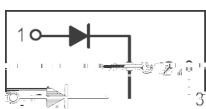
/ Features

Silicon epitaxial process to produce ultrafast recovery diode with low reverse leakage current and high reliability.

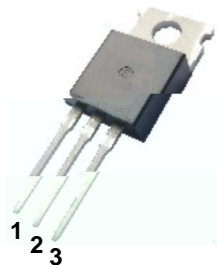
/ Applications

For high frequency, high voltage, high current rectifier diode, freewheeling diode.

/ Equivalent Circuit



/ Pinning



PIN1 Anode

PIN 2 Cathode

PIN 3 Anode

/ h_{FE} Classifications & Marking

See Marking Instructions

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	200	V
RMS Voltage	V_{RMS}	140	V
DC Blocking Voltage	V_{DC}	200	V
Average Forward Current	I_F	2 8	A
Non Repetitive Peak Surge Current	I_{FSM}	120	A
Thermal Resistance Junction to Case	$R_{\theta JC}$	2.8	/W
Operating and Storage Temperature Range	T_j T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=2A$ $T_c=25$		0.80		V
		$I_F=2A$ $T_c=125$		0.66		V
		$I_F=8A$ $T_c=25$		0.93	1.0	V
		$I_F=8A$ $T_c=125$		0.82	0.9	V
Instantaneous Reverse Current	I_R Note 1	$V_R=200V$ $T_a=25$			10	μA
		$V_R=200V$ $T_a=125$			150	μA
Reverse Recovery Time	t_{rr}	$I_F=0.5A$ $I_R=1.0A$ $I_{RR}=0.25A$			35	ns

/Notes

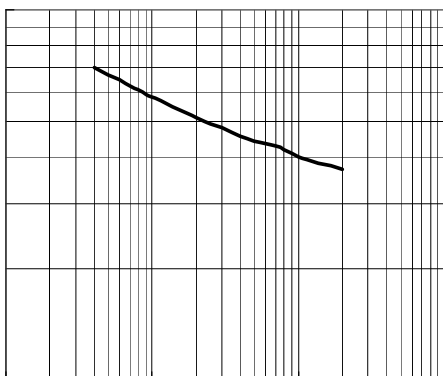
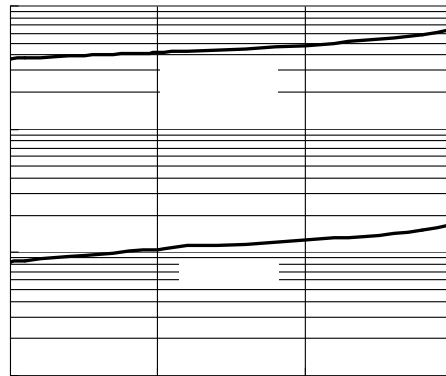
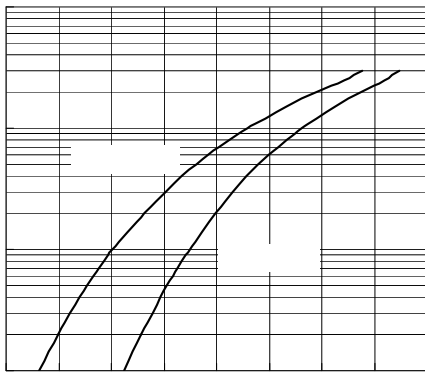
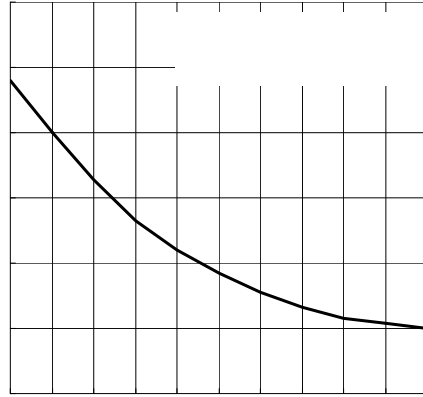
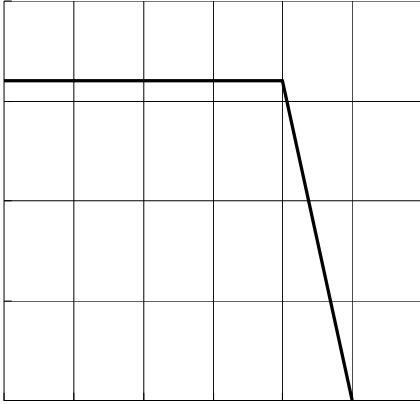
(%
effect.

2.
single chip

/Short duration pulse test used to minimize self-heating

/ Unless otherwise noted, values for the parameters of a

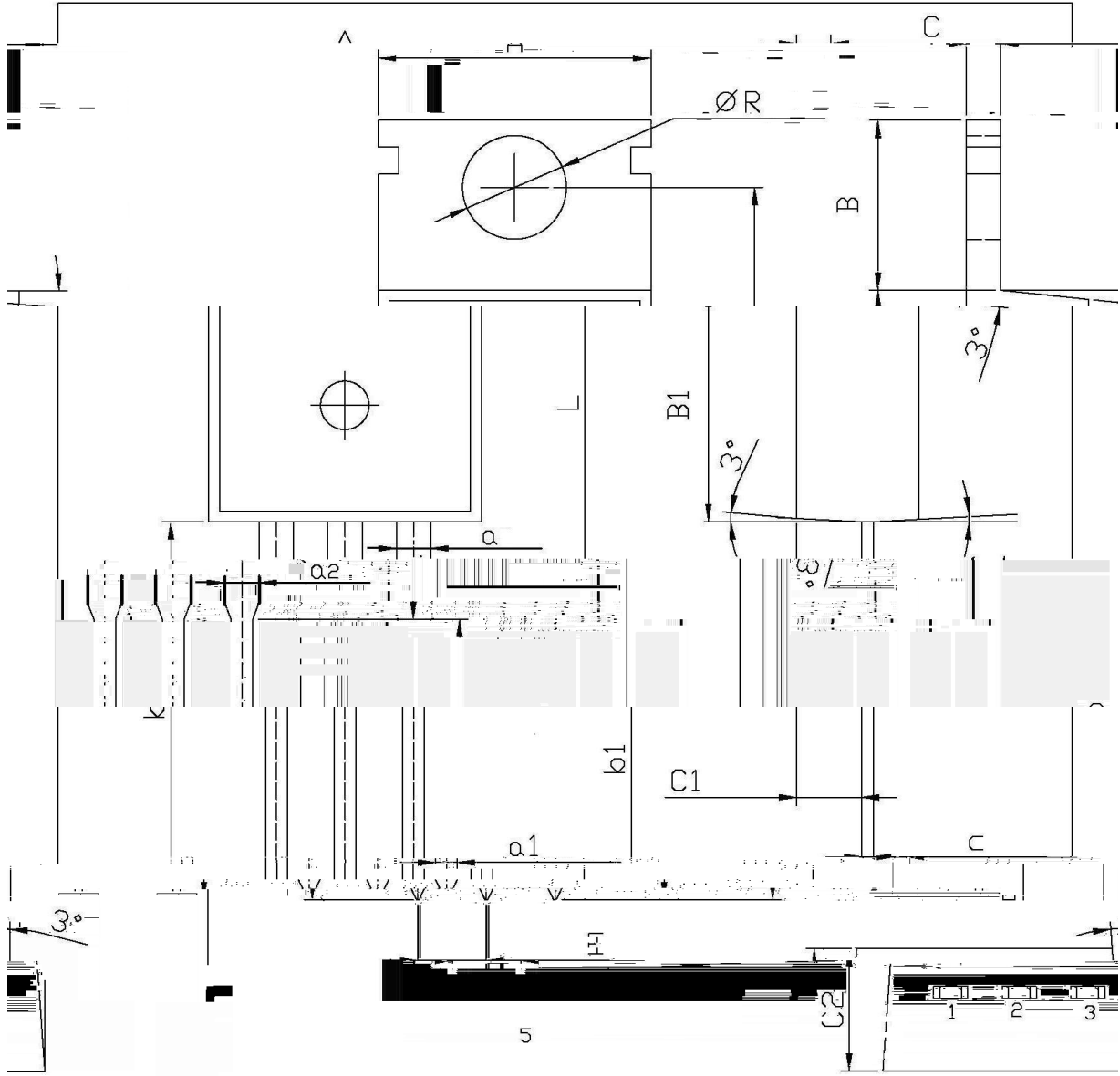
/ Electrical Characteristic Curve



/ Package Dimensions

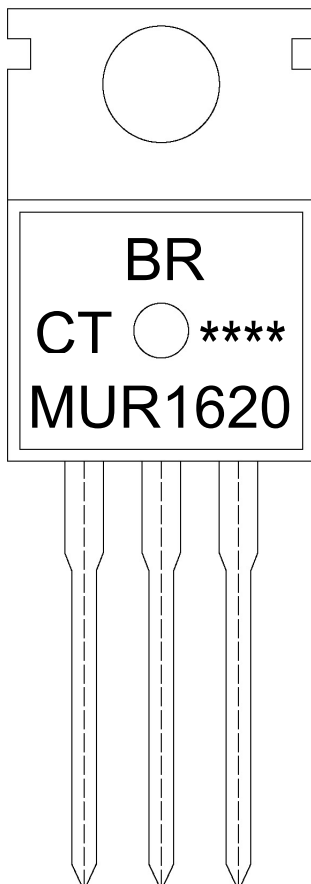
TO-220

单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
R	3.56	3.64	B	6.3	6.7
L	15.7	16.1	$B1$	9.0	9.4
b	12.6	13.6	$C1$	2.2	2.6
c	1.22	1.32	C	10.4	10.8
a	2.34	2.74	$a2$	1.25	1.45

/ Marking Instructions



BR

ML R(6)'

CK:

Note:

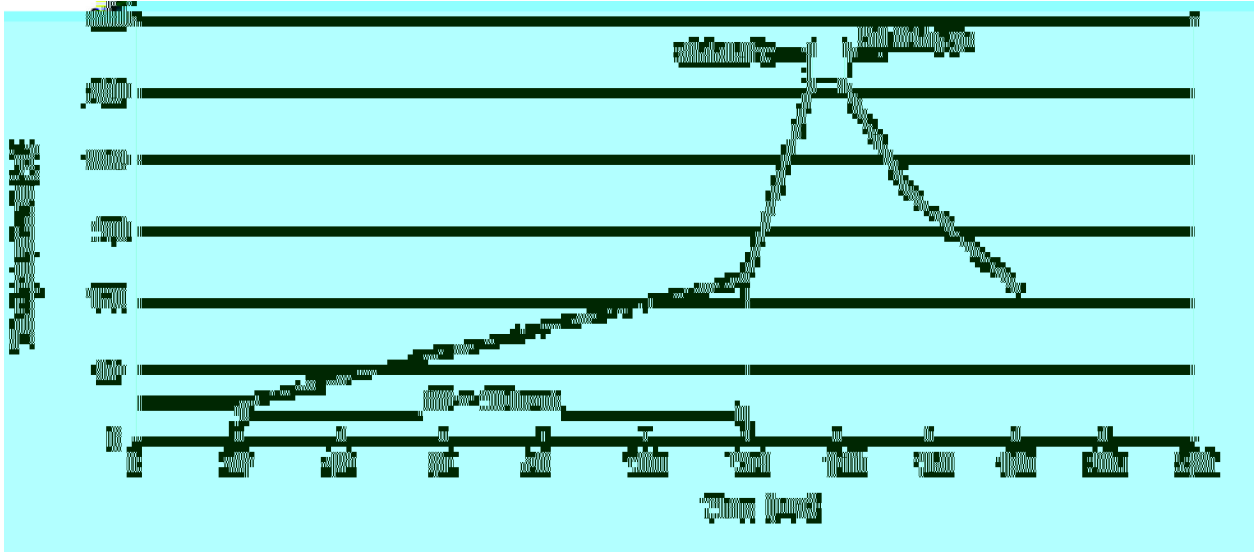
BR: Company Code

ML R(6) ' Product Type.

CK: Internal Structure

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

() / Temperature Profile for Dip Soldering(Pb-Free)



Note:

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

/ Resistance to Soldering Heat Test Conditions

270±5 10±1 sec. Temp.:270±5 Time:10±1 sec

/ Packaging SPEC.

/ 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	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

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

/ Notices