

/ Descriptions

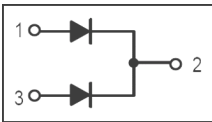
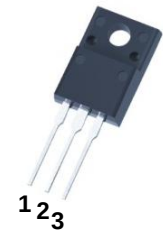
Ultrafast Recovery Diode in a TO-220F Plastic Package.

/ 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	2×10	A
Non Repetitive Peak Surge Current	I_{FSM}	120	A
Thermal Resistance Junction to Case	R_{JC}	3.3	°C/W
Operating Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

/ Electrical Characteristics(Ta=25)

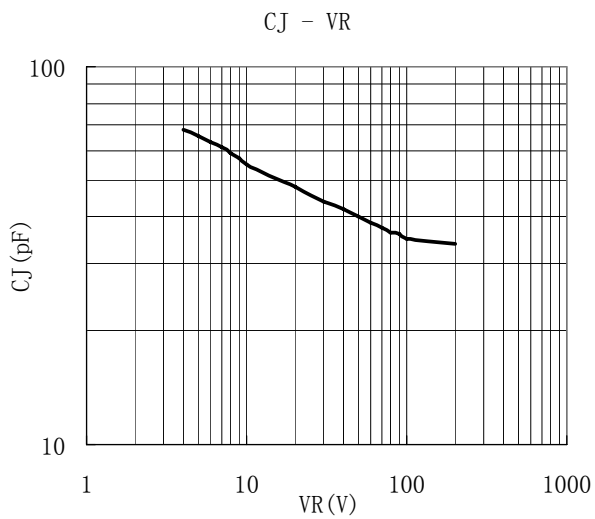
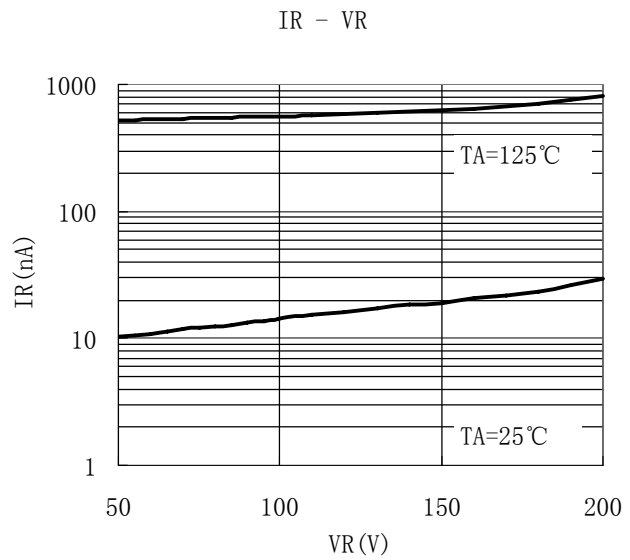
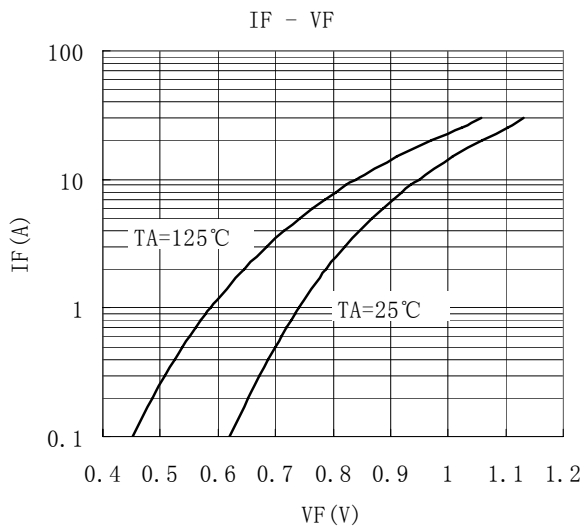
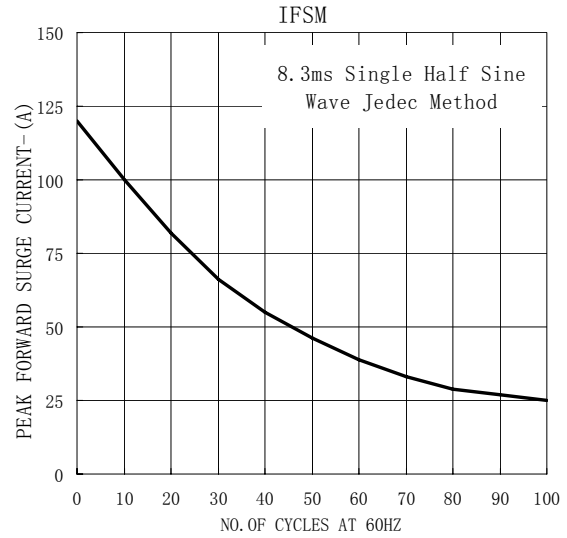
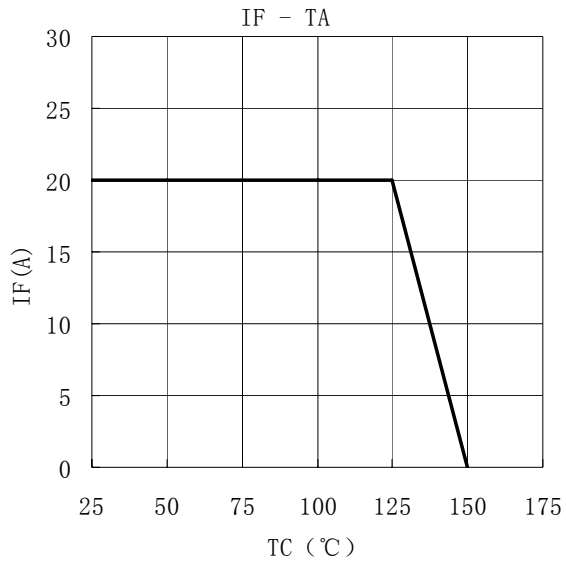
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=2A$ $T_c=25^\circ C$		0.79		V
		$I_F=2A$ $T_c=125^\circ C$		0.65		V
		$I_F=10A$ $T_c=25^\circ C$		0.95	1.0	V
		$I_F=10A$ $T_c=125^\circ C$		0.84	0.9	V
Instantaneous Reverse Current	I_R (Note 1)	$V_R=200V$ $T_a=25^\circ C$			10	A
		$V_R=200V$ $T_a=125^\circ C$			150	A
Reverse Recovery Time	t_{rr}	$I_R=1.0A$ $I_{RR}=0.25A$ $I_F=0.5A$			35	ns

/Notes:

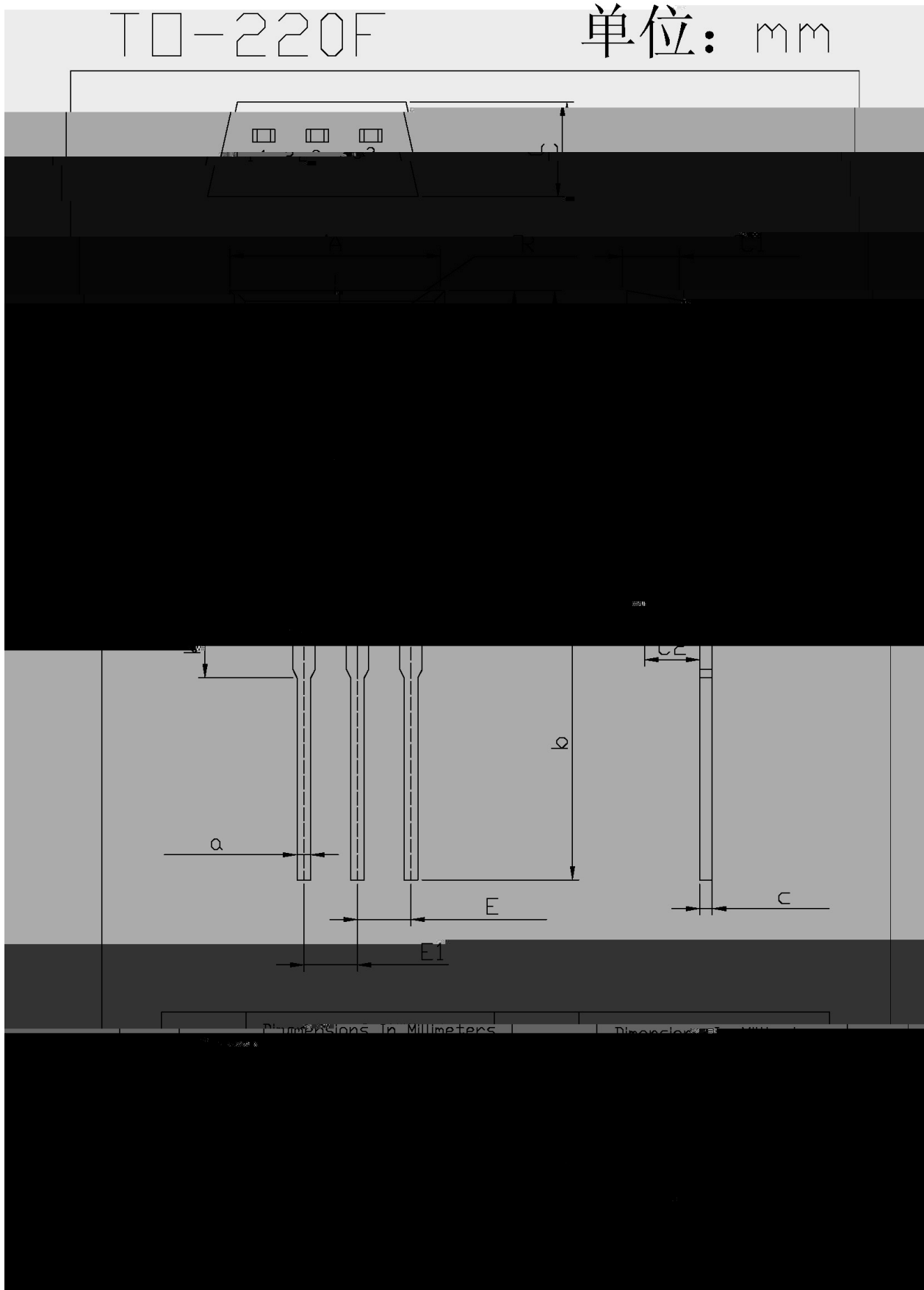
effect. /Short duration pulse test used to minimize self-heating

2. / Unless otherwise noted, values for the parameters of a single chip

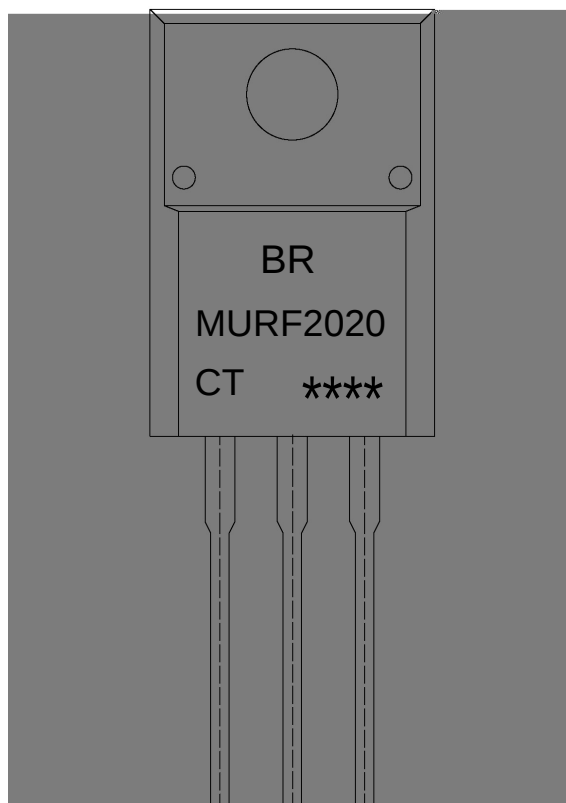
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



Note:

BR:

Company Code

MURF2020:

Product Type.

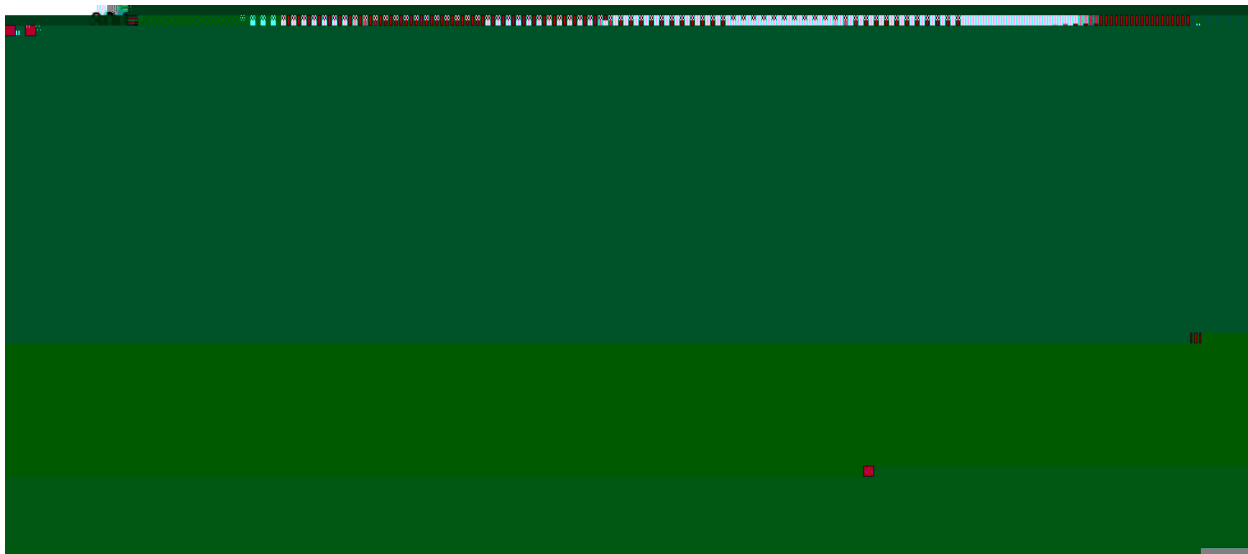
CT:

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