

/ Descriptions

TO-220F

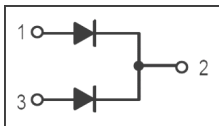
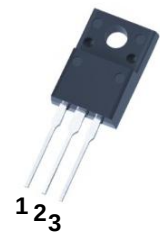
Ultrafast Recovery Diode in a TO-220F Plastic Package.

/ 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($T_a=25^\circ\text{C}$)

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	2×6	A
Non Repetitive Peak Surge Current	I_{FSM}	100	A
Thermal Resistance Junction to Case	$R_{\theta JC}$	3.3	/W
Storage Temperature Range	$T_j T_{stg}$	-55~150	

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

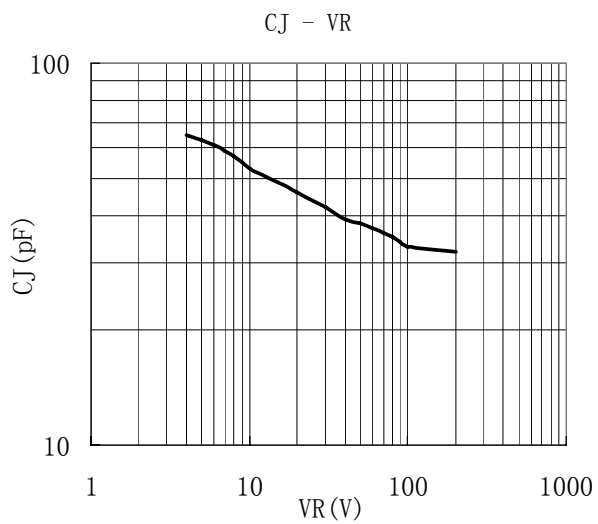
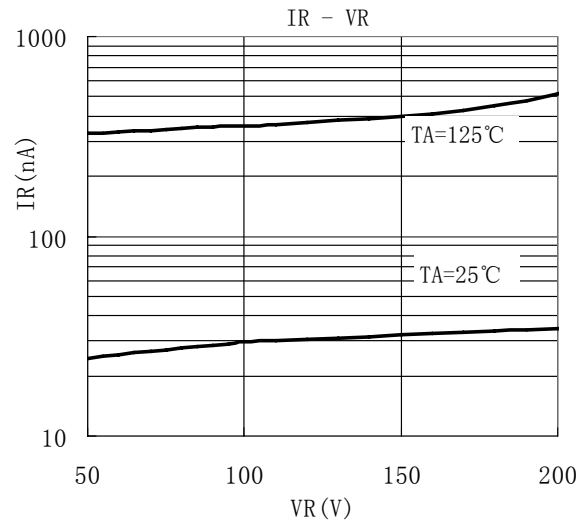
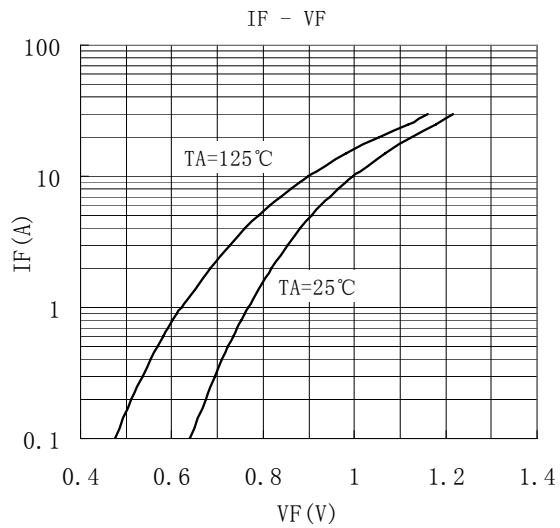
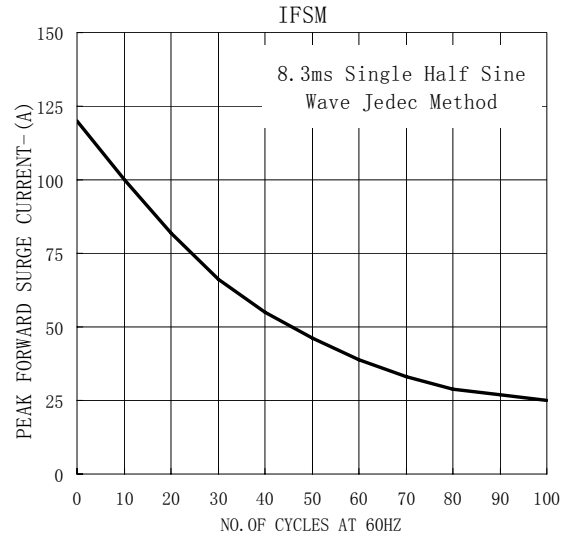
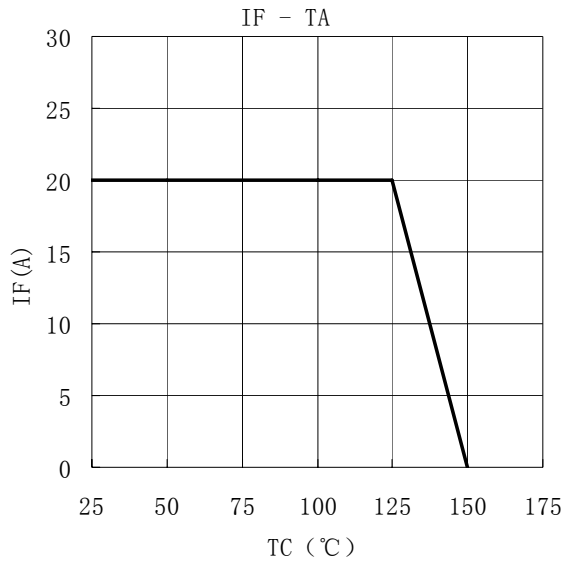
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=2\text{A}$ $T_c=25$		0.82		V
		$I_F=2\text{A}$ $T_c=125$		0.68		V
		$I_F=6\text{A}$ $T_c=25$		0.92	1.0	V
		$I_F=6\text{A}$ $T_c=125$		0.82	0.9	V
Instantaneous Reverse Current	I_R	$V_R=200\text{V}$ $T_a=25$			10	μA
		$V_R=200\text{V}$ $T_a=125$			150	μA
Reverse Recovery Time	t_{rr}	$I_R=1.0\text{A}$, $I_F=0.5\text{A}$ $I_{RR}=0.25\text{A}$			35	ns

/Notes:

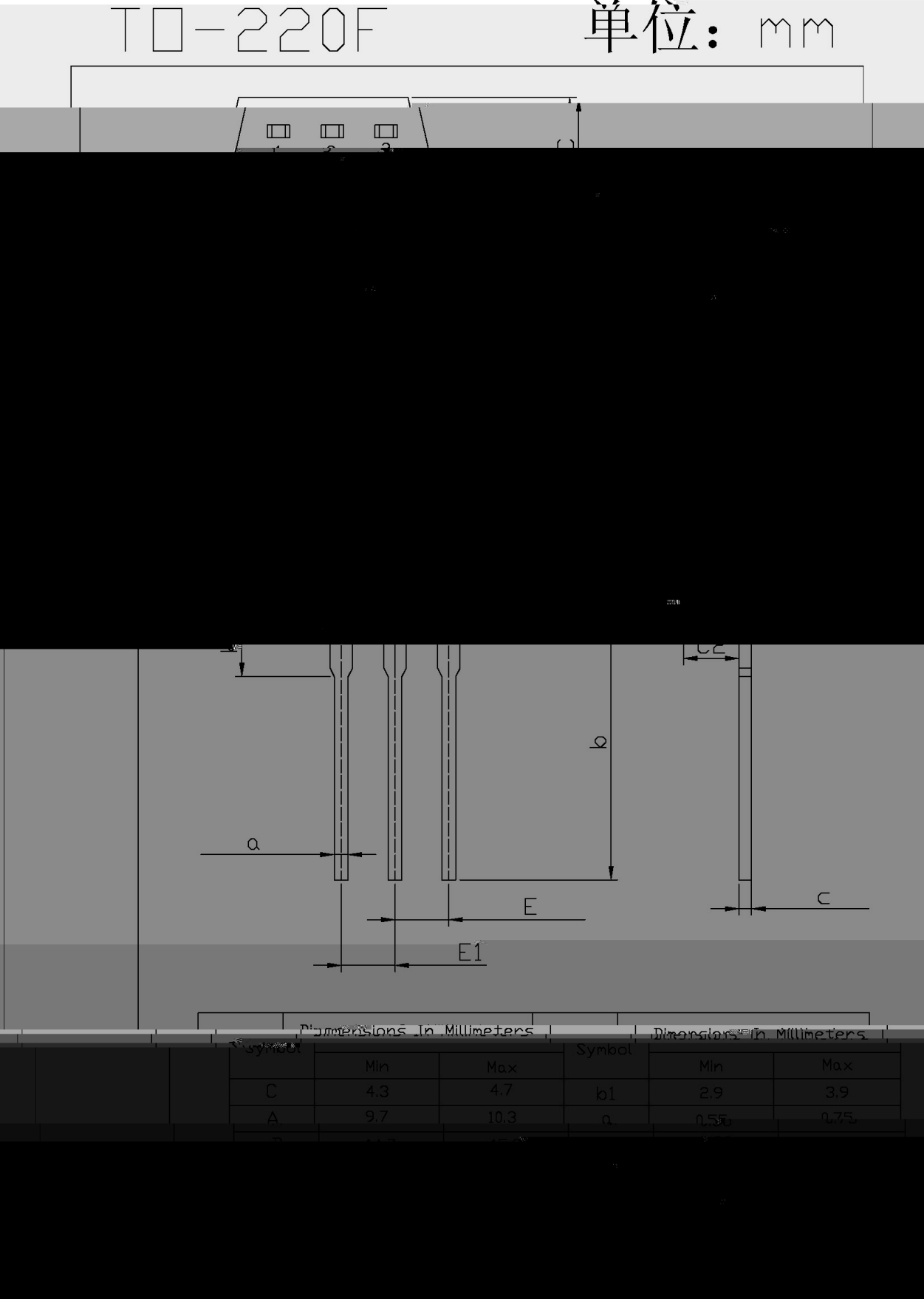
1. /Short duration pulse test used to minimize self-heating effect.
2. / Unless otherwise noted, values for the parameters of a single chip



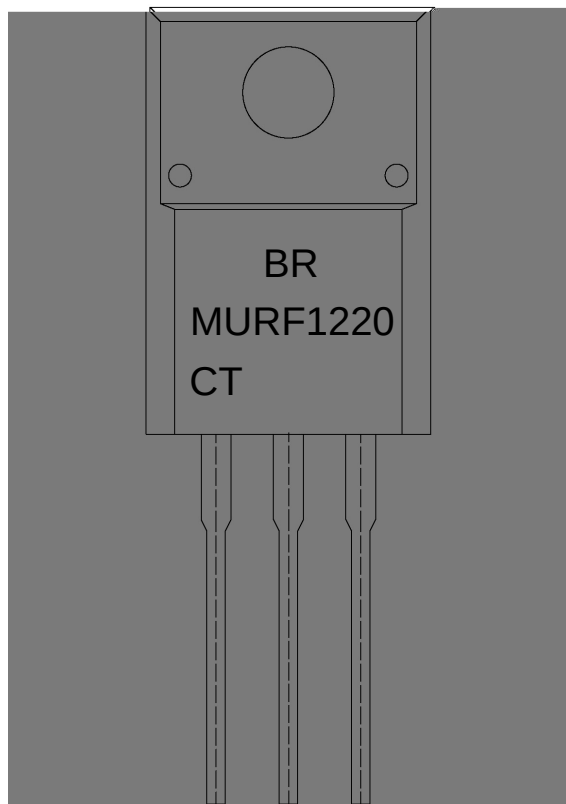
Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

MURF1220

CT:

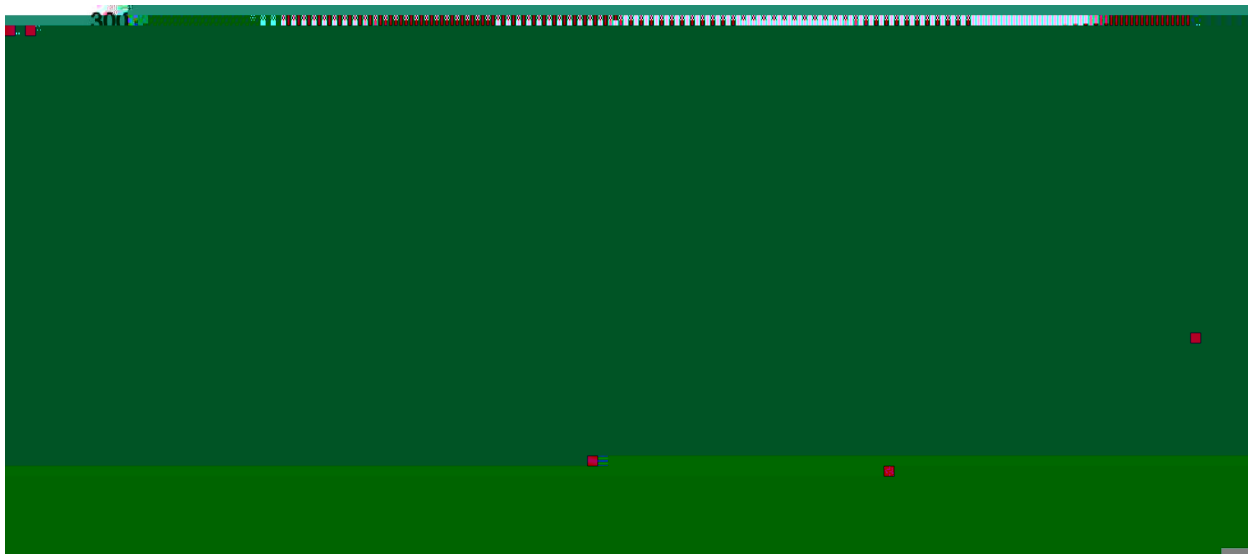
Note:

BR: Company Code

MURF1220: 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
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/ Packaging SPEC.
/ BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 袋	袋 盒	只 盒	盒 箱	只 箱	袋	盒	箱

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 套管	套管 盒	只 盒	盒 箱	只 箱	套管	盒	箱

/ Notices