

LV30Q100FCT

Rev.F Mar.-2016



DATA SHEET

/ Descriptions

TO-220F

Schottky Barrier Diode in a TO-220F Plastic Package.

/ Features

Low forward voltage drop, low power losses, High efficiency operation.

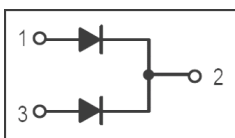
/ Applications

OR-ing

DC-DC

For use in high frequency inverters, switching power supplies, freewheeling diodes, OR-ing diode, dc-to-dc converters and reverse battery protection.

/ 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_{RM}	100	V
Working Peak Reverse Voltage	V_{RSM}		
Average Rectified Forward Current	$I_{F(AV)}$	2×15	A
Non Repetitive Peak Surge Current	I_{FSM}	150	A
Thermal Resistance Junction to Case	$R_{\theta Jc}$	4.6	/W
Junction and Storage Temperature Range	T_j T_{stg}	-40~+150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Breakdown Voltage	V_{BR}	$I_R=1\text{mA}(T_a=25^\circ\text{C})$	100			V
Forward Voltage	V_F	$I_F=5\text{A}(T_a=25^\circ\text{C})$		0.54		V
		$I_F=1\text{A}(T_a=25^\circ\text{C})$			0.765	V
		$I_F=5\text{A}(T_a=125^\circ\text{C})$		0.50		V
		$I_F=15\text{A}(T_a=125^\circ\text{C})$			0.75	V
Instantaneous Reverse Current	I_R (Note 1)	$V_R=100\text{V}(T_a=25^\circ\text{C})$			150	μA
		$V_R=100\text{V}(T_a=125^\circ\text{C})$			150	mA

/Notes

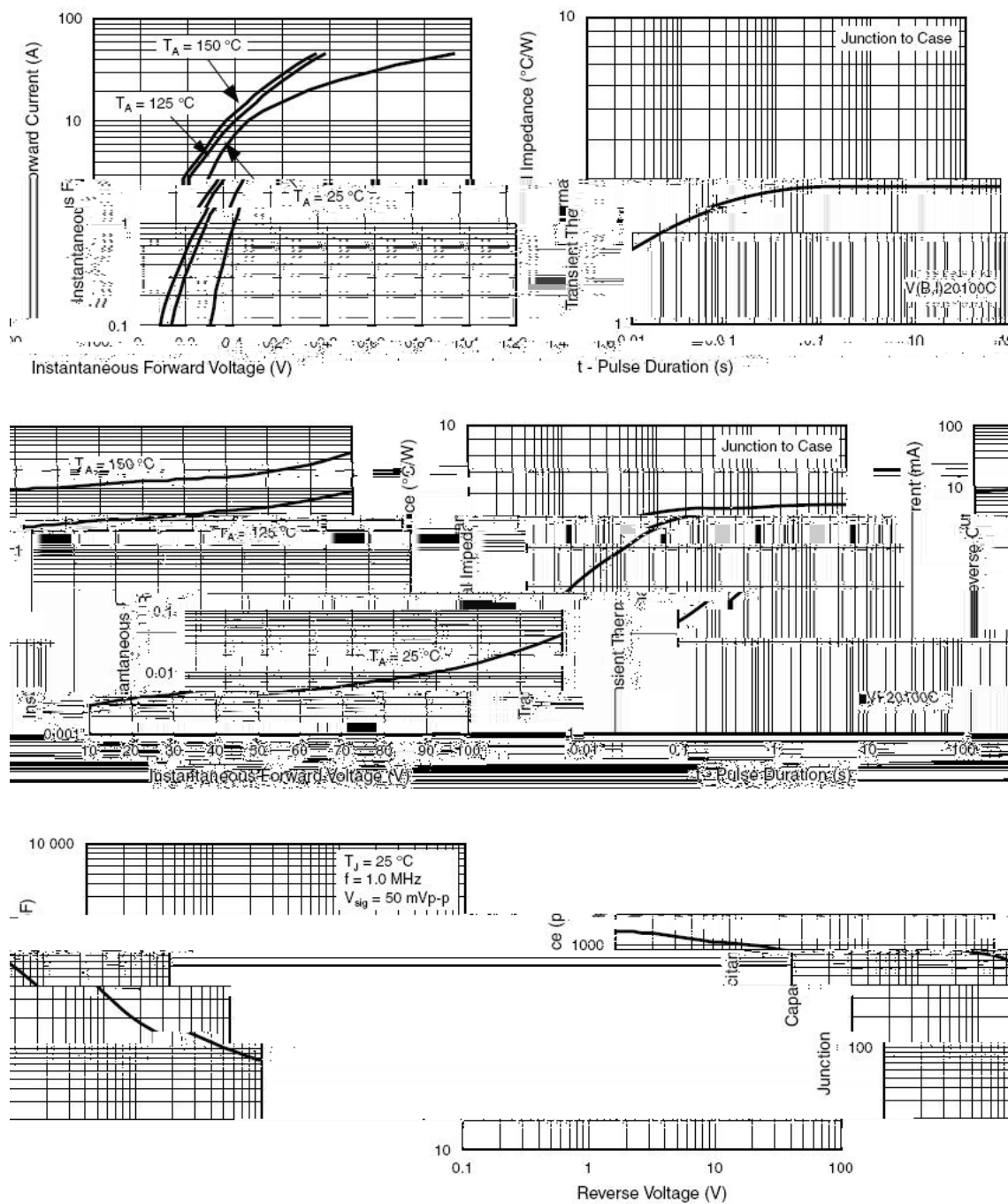
1.

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

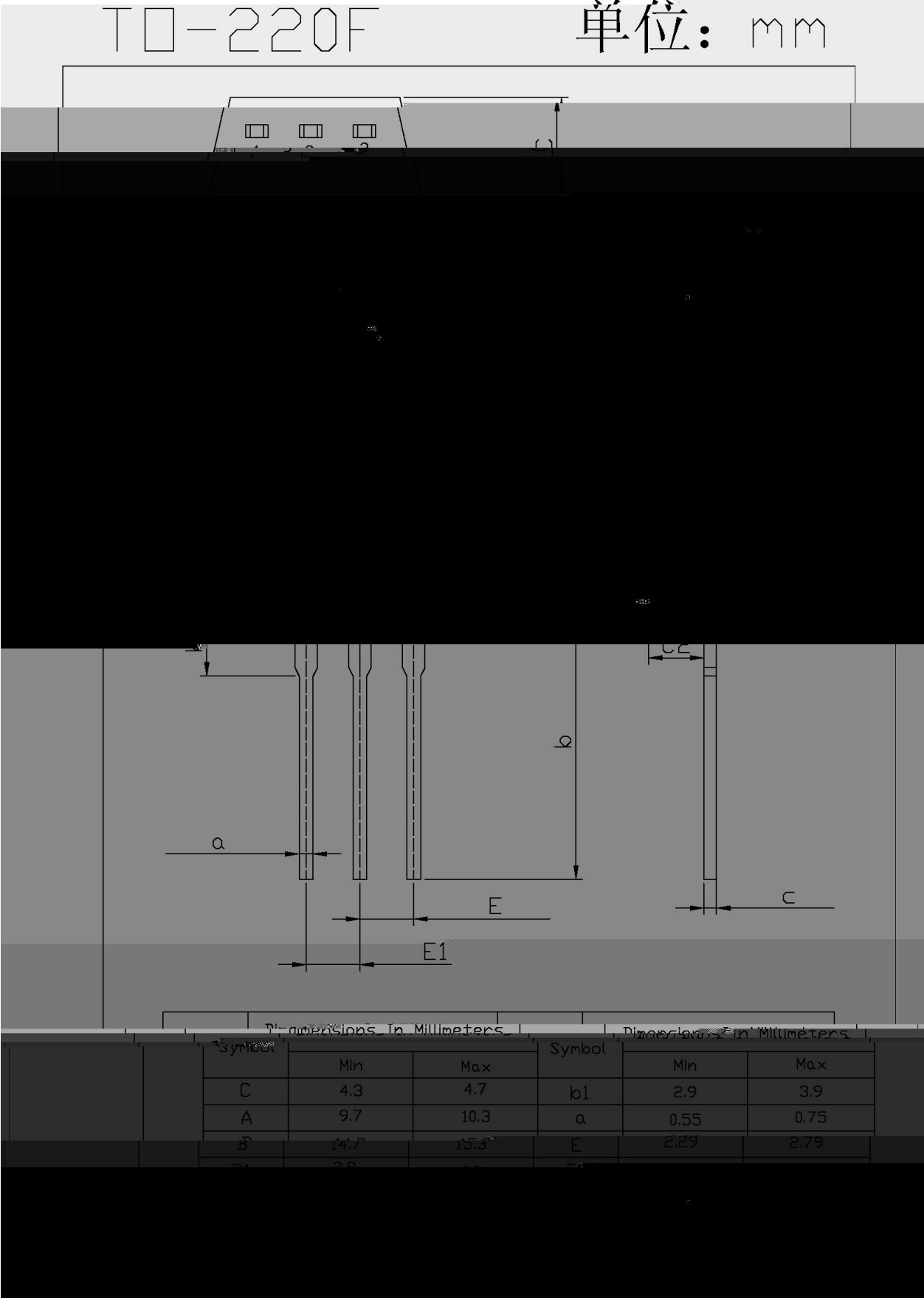
2.

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

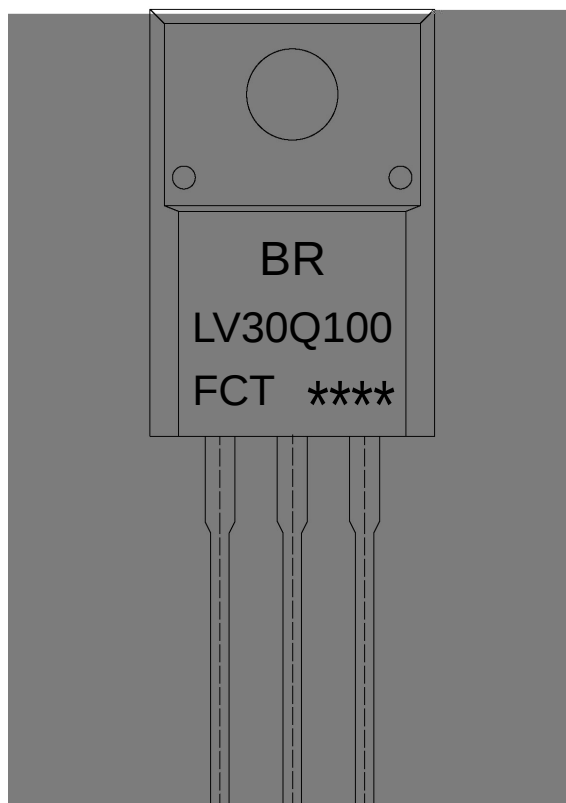
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

LV30Q100

CT:

F:

Note:

BR: Company Code

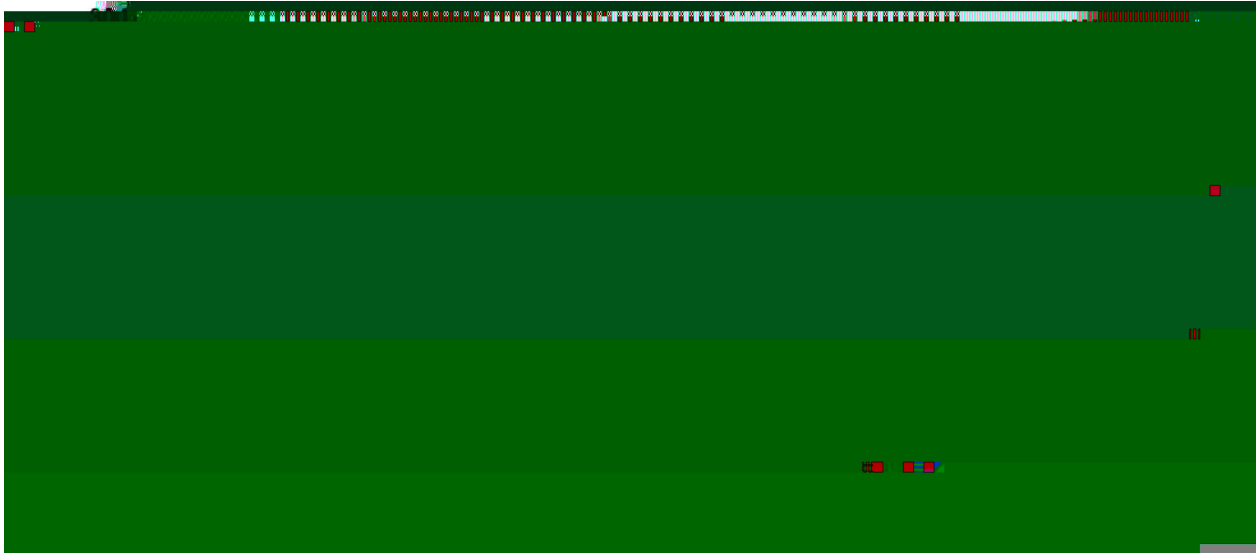
LV30Q100: Product Type.

CT: Internal Structure

F: Package Code

****: 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	Units					Dimension (unit mm ³)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices