

/ Descriptions

Schottky Barrier Diode in a TO-220 Plastic Package.

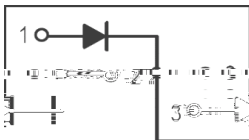
/ Features

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

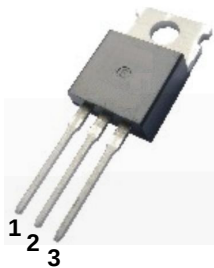
/ Applications

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 Working Peak Reverse Voltage DC Blocking Voltage	V_{RM} V_{RSM} V_{DC}	150	V
RMS Reverse Voltage	V_{RMS}	105	V
Average Rectified Output Current	$I_{F(AV)}$	2×5	A
Non Repetitive Peak Surge Current	I_{FSM}	80	A
Thermal Resistance Junction to Case	$R_{\theta JC}$	3.0	$^\circ\text{C}/\text{W}$
Junction and Storage Temperature Range	T_j T_{stg}	$-55 \sim +150$	$^\circ\text{C}$

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

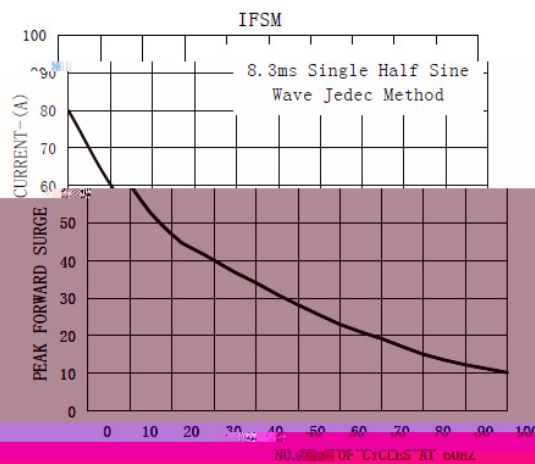
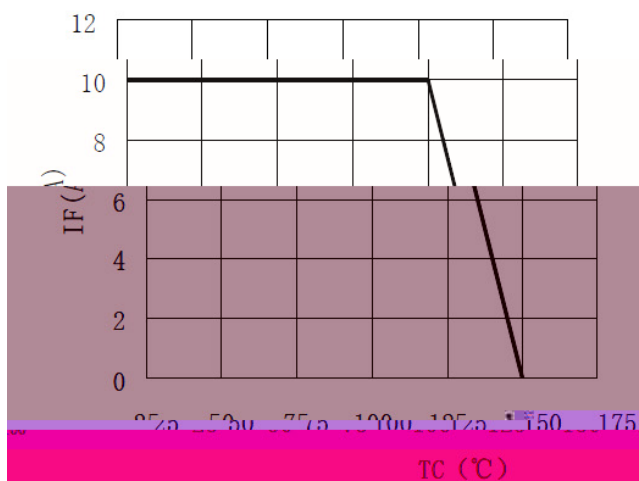
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Breakdown Reverse Voltage	V_{BR}	$I_R=1\text{mA}(T_a=25^\circ\text{C})$	150			V
Forward Voltage	V_F	$I_F=3\text{A}(T_a=25^\circ\text{C})$		0.76	0.83	V
		$I_F=5\text{A}(T_a=25^\circ\text{C})$		0.86	0.95	V
		$I_F=3\text{A}(T_a=125^\circ\text{C})$		0.61		V
		$I_F=5\text{A}(T_a=125^\circ\text{C})$		0.67	0.75	V
Instantaneous Reverse Current	I_R (Note 1)	$V_R=150\text{V}(T_a=25^\circ\text{C})$			15	μA
		$V_R=150\text{V}(T_a=125^\circ\text{C})$		1.0	5.0	mA

/Notes:

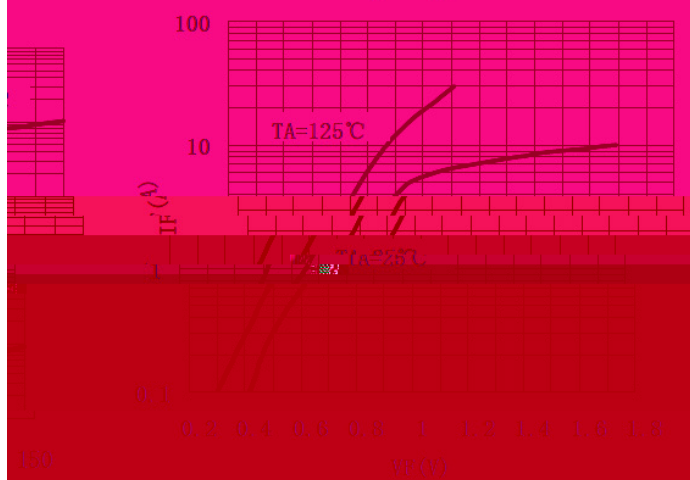
1. $\circ$ /Short duration pulse test used to minimize self-heating effect.
2. $\circ$ / Unless otherwise noted, values for the parameters of a single chip

/ Electrical Characteristic Curve

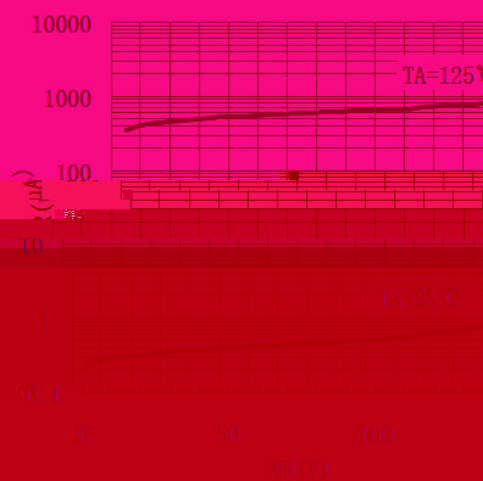
IF - TC



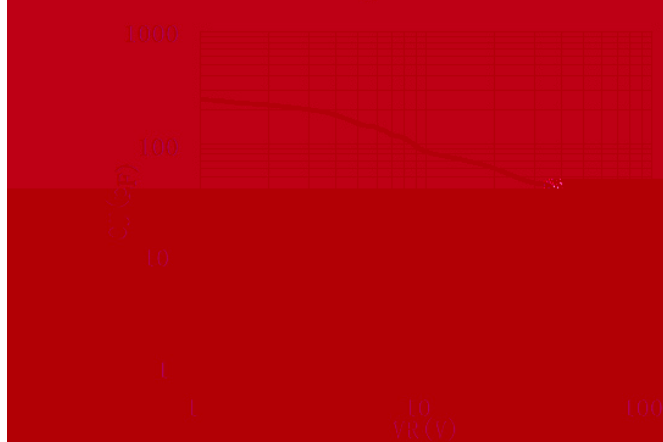
IF - VF



IR - VR



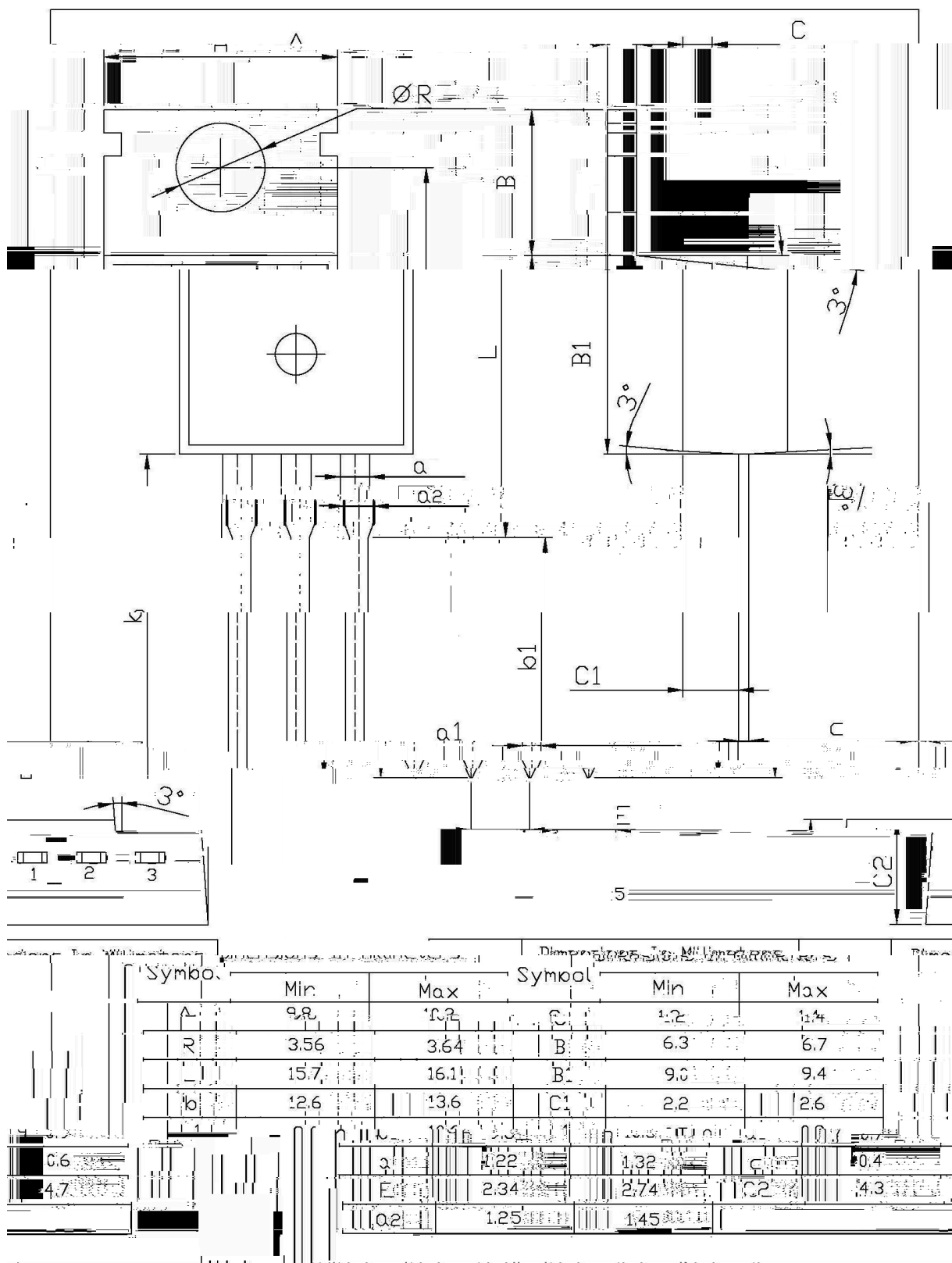
CJ - VR



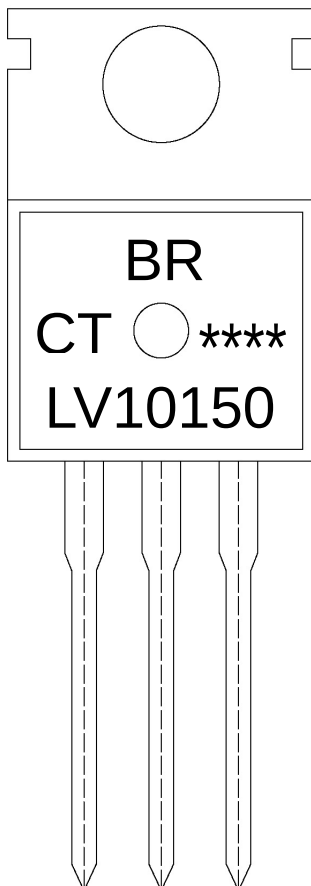
/ Package Dimensions

TQ-220

单位: mm



/ Marking Instructions



Note:

BR:

Company Code

LV10150

Product Type.

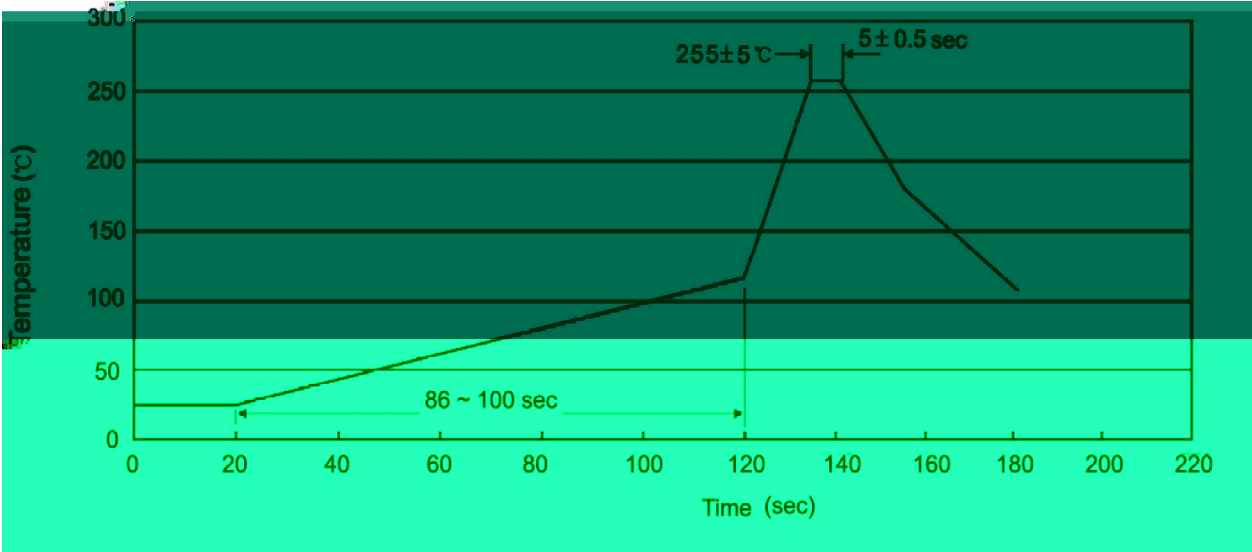
CT:

Internal Structure

****:

Lot No. Code, code change with Lot No.

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



Note:

- 1

25 150

60 90sec;
- 2

255 5

5 0.5sec;
- 3

2 10

/sec.
- 1.Preheating:25~150

, Time:60~90sec.
- 2.Peak Temp.:255 5

, Duration:5 0.5sec.
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