

/ Descriptions

TO-3P

Schottky Barrier Diode in a TO-3P Plastic Package.

/ Features

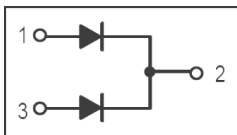
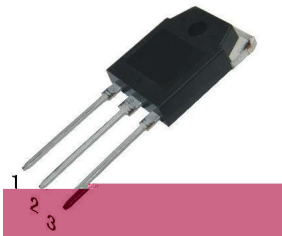
Low forward voltage drop, low power losses, High efficiency operation.

/ 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(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	150	V
RMS Reverse Voltage	V_{RMS}	105	V
Average forward current	$I_{F(AV)}$	2 20	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	300	A
Thermal Resistance Junction to Ambient case	R_{Jc}	1.4	°C/W
Junction and Storage Temperature Range	T_J T_{stg}	-40 +150	°C

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	V_{BR}	$I_R=1mA(Ta=25^{\circ}C)$	150			V
Forward Voltage	V_F	$I_F=5A(Ta=25^{\circ}C)$		0.68		V
		$I_F=10A(Ta=25^{\circ}C)$		0.76		V
		$I_F=20A(Ta=25^{\circ}C)$		0.89	1.05	V
		$I_F=5A(Ta=125^{\circ}C)$		0.56		V
		$I_F=10A(Ta=125^{\circ}C)$		0.63		V
		$I_F=20A(Ta=125^{\circ}C)$		0.73	0.85	V
Instantaneous Reverse current (Note 1)	I_R Note 1	$V_R=150V(Ta=25^{\circ}C)$		3.0	30	A
		$V_R=150V(Ta=125^{\circ}C)$		5.0	15	mA

/Notes

1.
effect.

/Short duration pulse test used to minimize self-heating

2.
single chip.

/ Unless otherwise noted, values for the parameters of a

/ Electrical Characteristic Curve

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

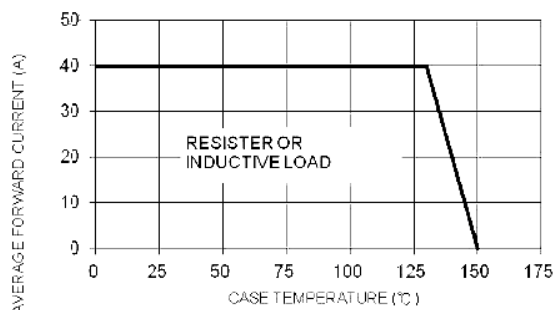


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

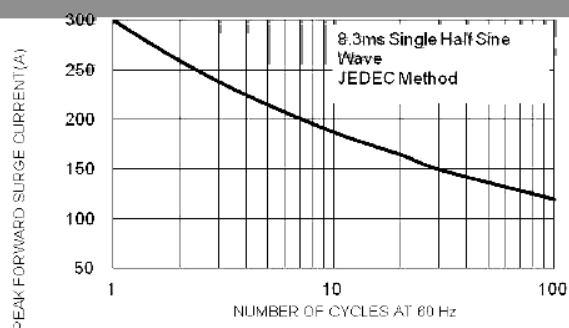


FIG.3 TYPICAL FORWARD CHARACTERISTICS PER LEG

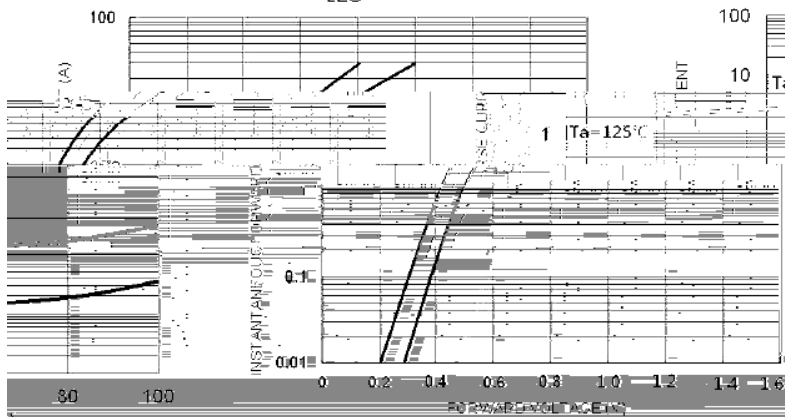
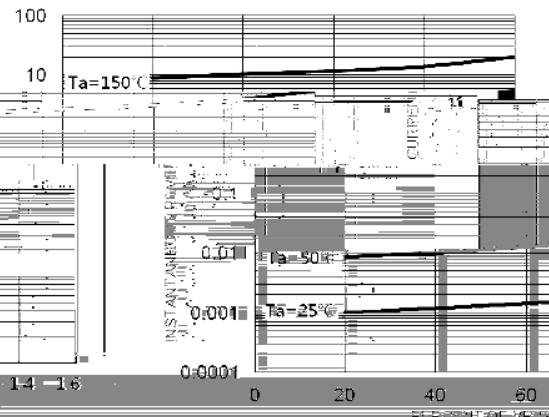
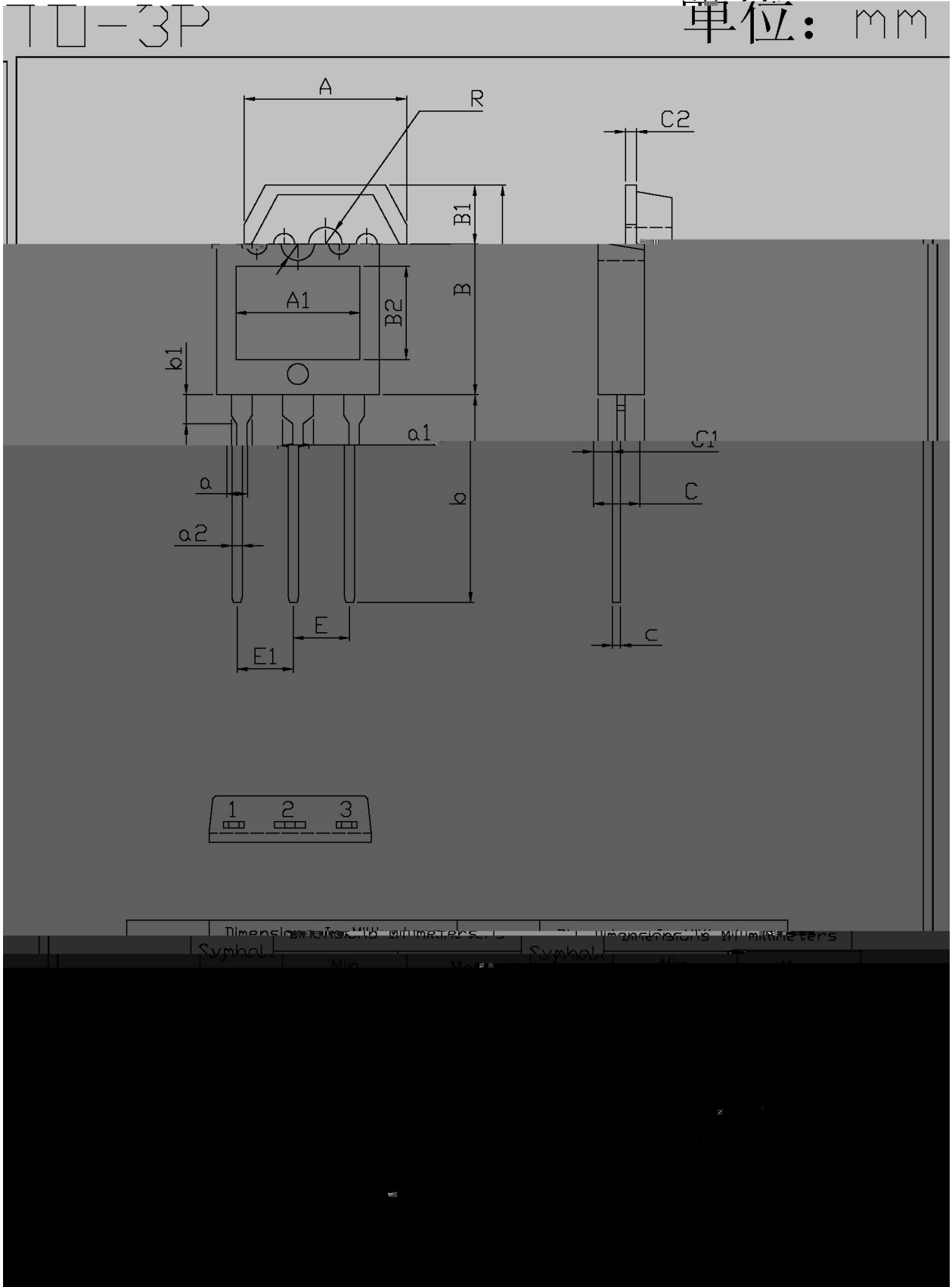


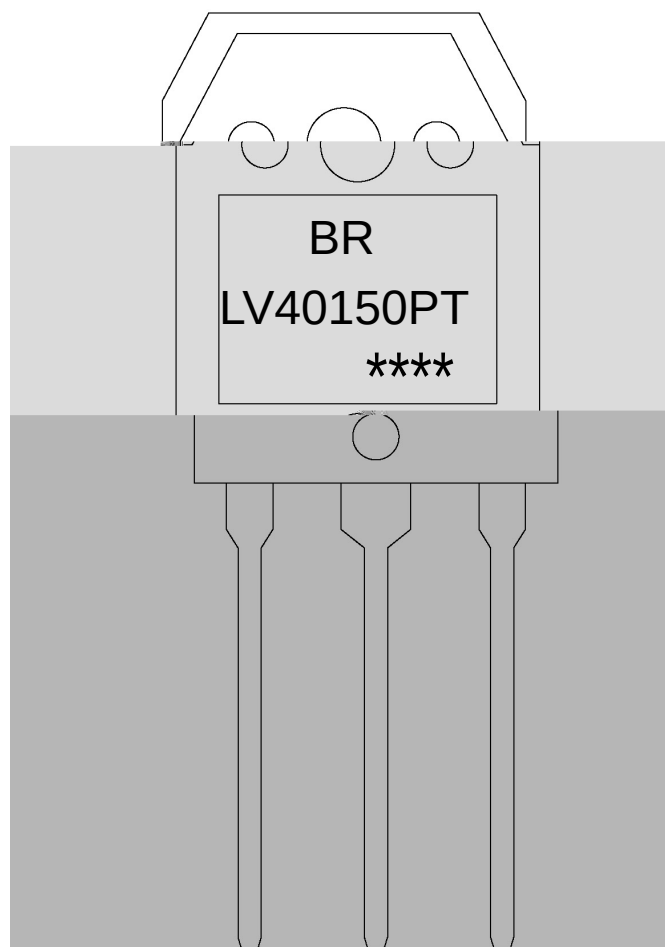
FIG.4 TYPICAL REVERSE CHARACTERISTICS PER LEG



/ Package Dimensions



/ Marking Instructions



BR

LV40150PT

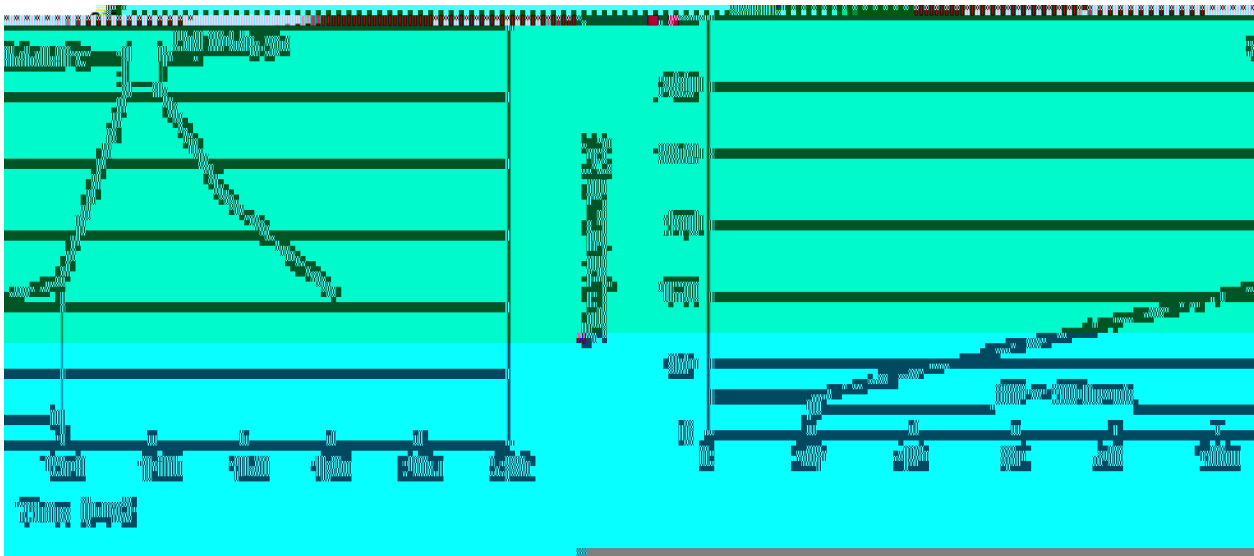
Note:

BR: Company Code.

LV40150PT: Product Type.

****: 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.

/ 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-3P	30	15	450	5	2250	497.5×46×8	555×164×50	575×290×180

/ Notices