

LV40150PT

Rev.F Mar.-2016

/ Descriptions

TO-3P

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

/ Features

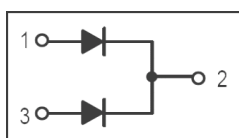
Low forward voltage drop, low power losses, High efficiency operation.

/ Applications

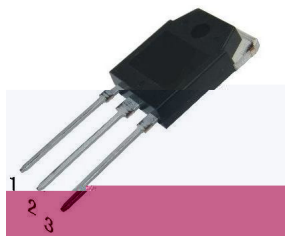
OR-ing DC-DC

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	/W
Junction and Storage Temperature Range	T_j T_{stg}	-40 +150	

/ Electrical Characteristics(Ta=25)

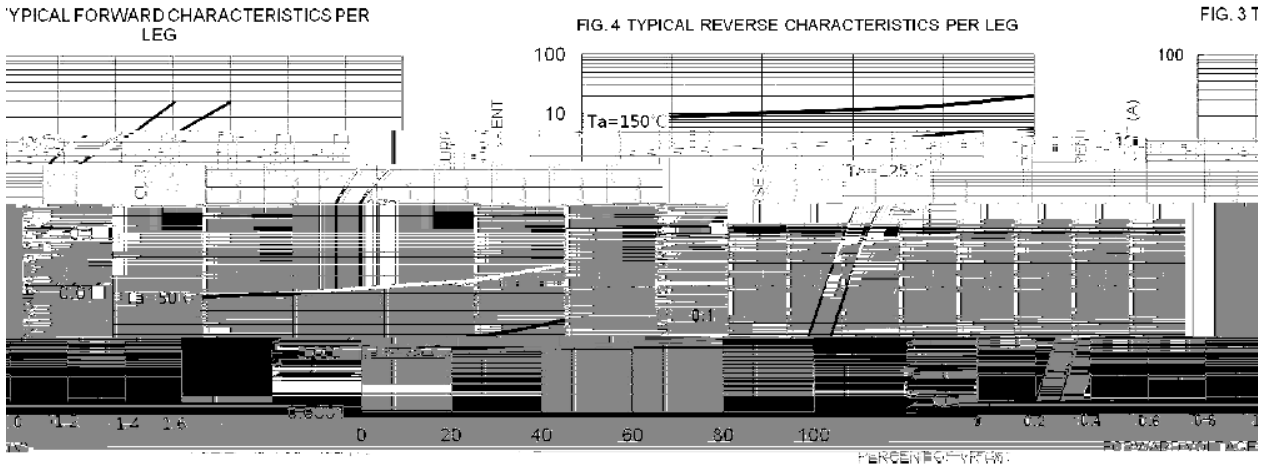
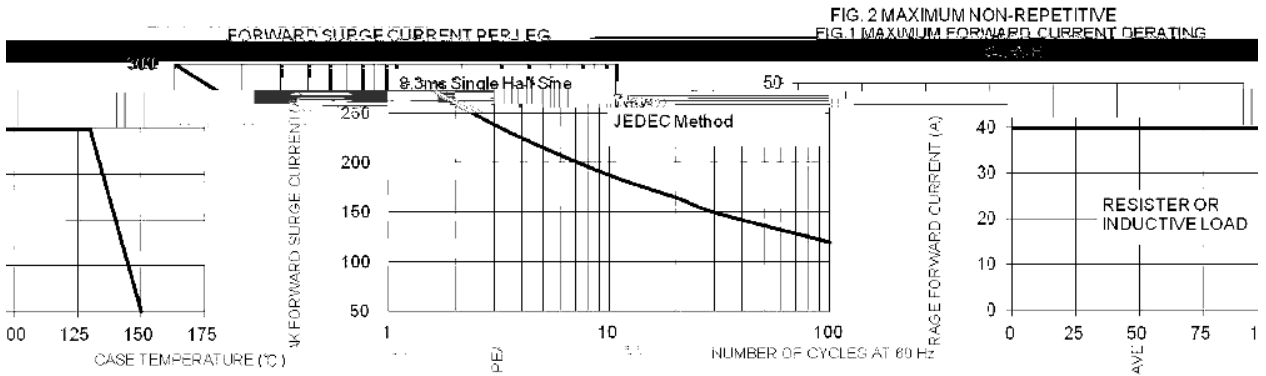
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	V_{BR}	$I_R=1mA(Ta=25)$	150			V
Forward Voltage	V_F	$I_F=5A(Ta=25)$		0.68		V
		$I_F=10A(Ta=25)$		0.76		V
		$I_F=20A(Ta=25)$		0.89	1.05	V
		$I_F=5A(Ta=125)$		0.56		V
		$I_F=10A(Ta=125)$		0.63		V
		$I_F=20A(Ta=125)$		0.73	0.85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

/Notes

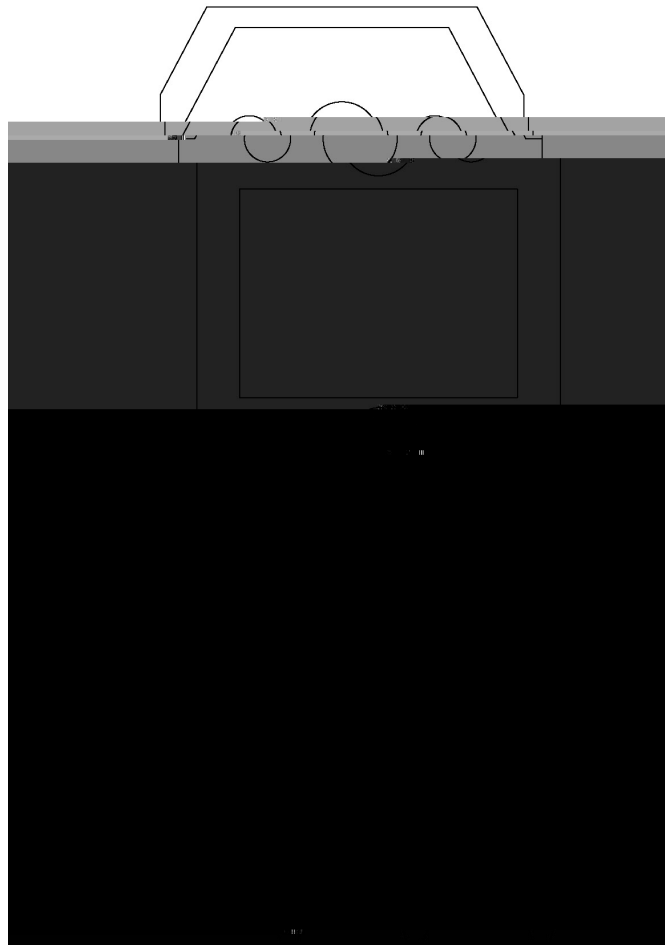
1. /Short duration pulse test used to minimize self-heating effect.

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

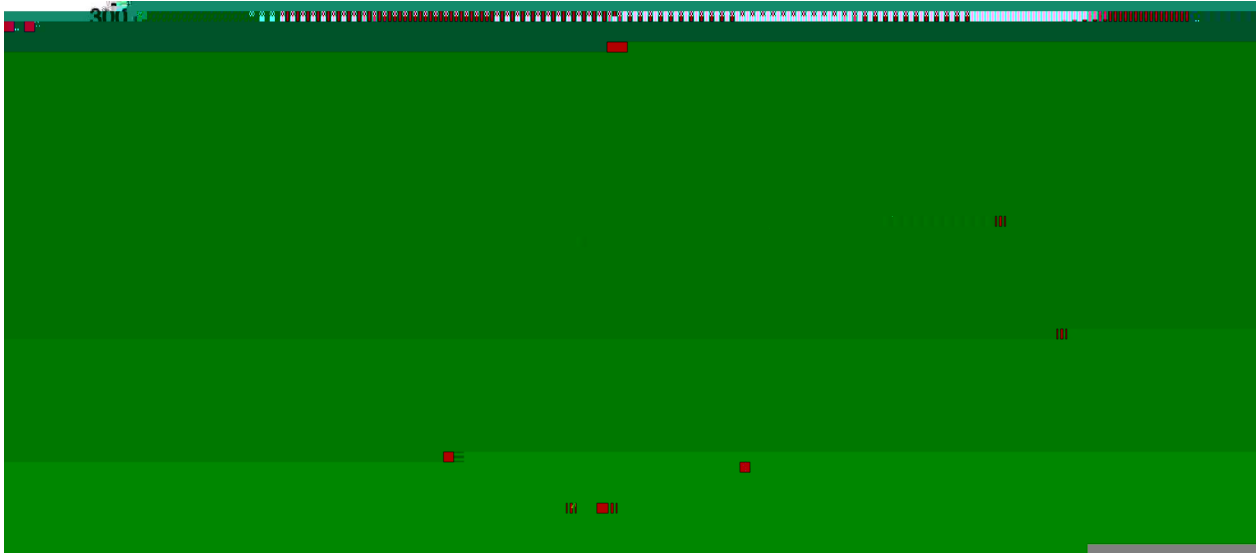
/ Electrical Characteristic Curve



/ Marking Instructions



() / 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.

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

/ Notices