

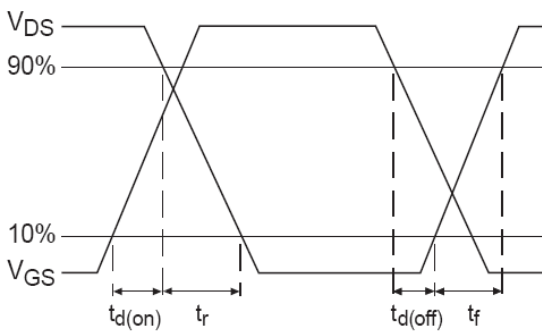
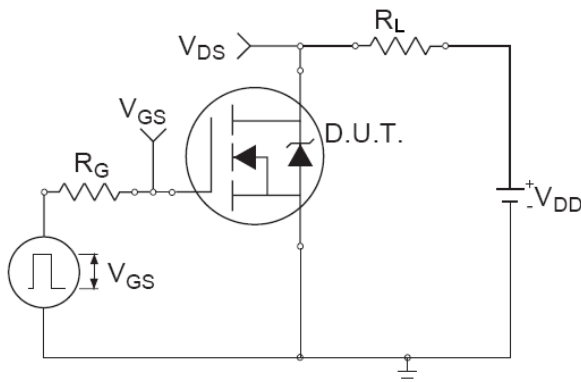
**Features**

- V<sub>DSS</sub>=100V/V<sub>GS</sub>=±25V/I<sub>D</sub>=140A  
R<sub>DS(ON)</sub>=7.2mΩ(max.)@V<sub>GS</sub>=10V
- Low Dense Cell Design
- Reliable and Rugged
- Advanced trench process technology

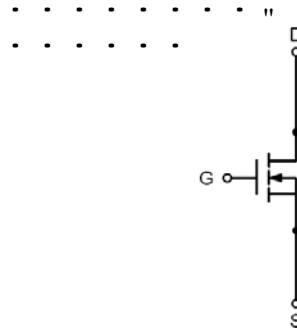
**Applications**

- Synchronous Rectification
- Power Management in Inverter System

**Switching Time Test Circuit and Waveforms**



**Pin Description**



Marking and pin Assignment



TO-220-3L top view

**Package Marking and Ordering Information**

Device Marking	Device	Device Package	Reel Size	Tape width	Quantity
PT1HF€	PT1HF€	TO-220-3L	330mm	12.5mm	5000

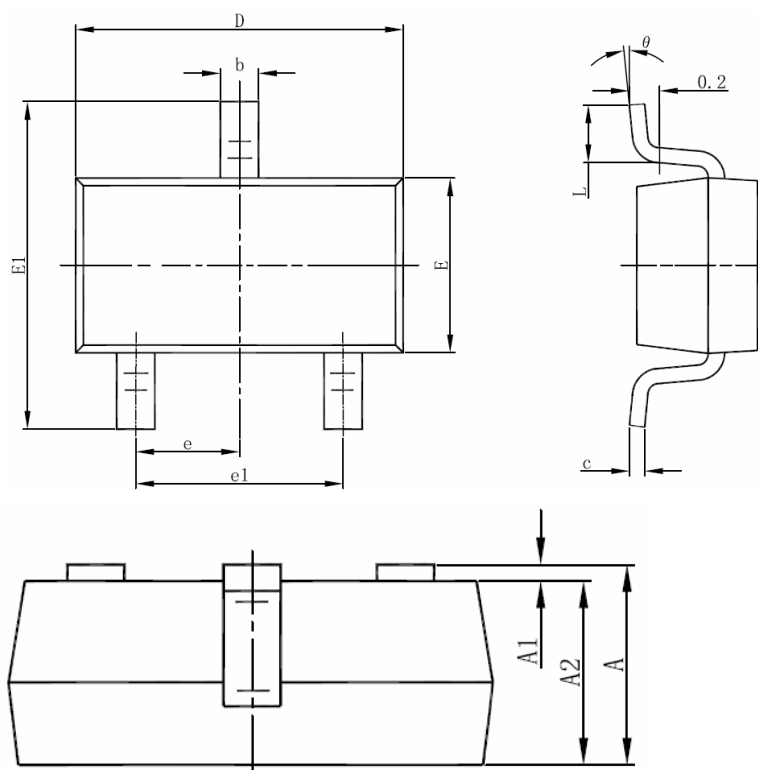
**Electrical Characteristics of CP Test** (TA=25°C unless otherwise noted)

Symbol	Parameter	Test Conditions	Min.	Typ	Max.	Unit
<b>Static Characteristics</b>						
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V, I <sub>D</sub> =250uA	100			V
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =80V, V <sub>GS</sub> =0V			1	uA
		T <sub>J</sub> =85°C			30	
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =250uA	2	2.8	4	V
I <sub>GSS</sub>	Gate Leakage Current	V <sub>GS</sub> =±25V, V <sub>DS</sub> =0V			±100	nA
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> =10V, I <sub>D</sub> =40A		6.2	7.2	mΩ
V <sub>SD</sub>	Diode Forward Voltage	I <sub>SD</sub> =30A, V <sub>GS</sub> =0V			1.3	V
R <sub>G</sub>	Gate Resistance	V <sub>GS</sub> =0V, V <sub>DS</sub> =0V, Frequency=1MHz		1.7		Ω

Note: 1: Pulse test ; pulse width ≤ 300ns, duty cycle ≤ 2%.

2: Guaranteed by design, not subject to production testing.

## SOT-23-3L PACKAGE INFORMATION



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

### NOTES

1. All dimensions are in millimeters.
2. Tolerance ±0.10mm (4 mil) unless otherwise specified
3. Package body sizes exclude mold flash and gate burrs. Mold flash at the non-lead sides should be less than 5 mils.
4. Dimension L is measured in gauge plane.
5. Controlling dimension is millimeter, converted inch dimensions are not necessarily exact.

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