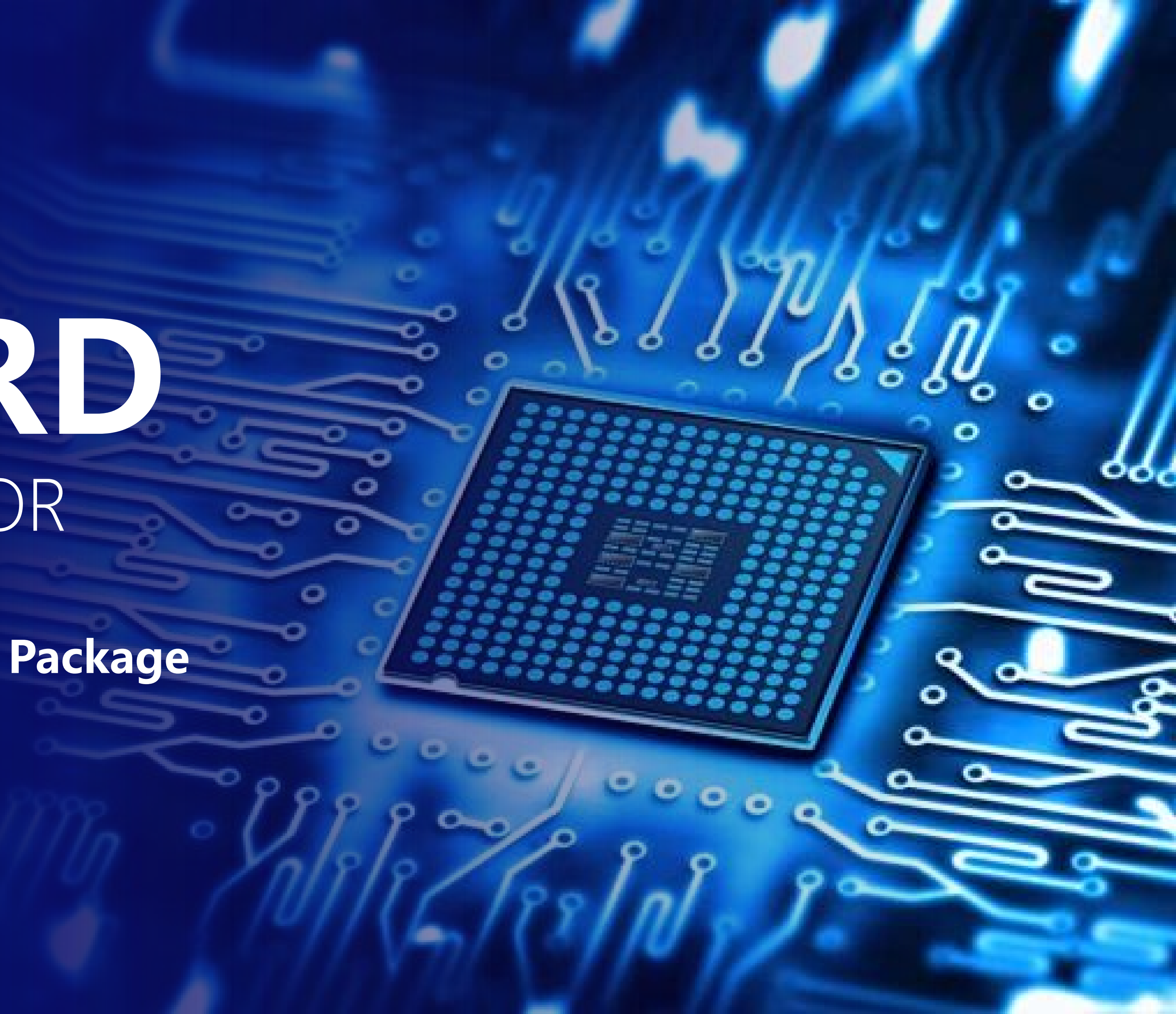
GOFORD

SEMICONDUCTOR



Introduction to TOLT Package

JUNE 2024

CONTENT

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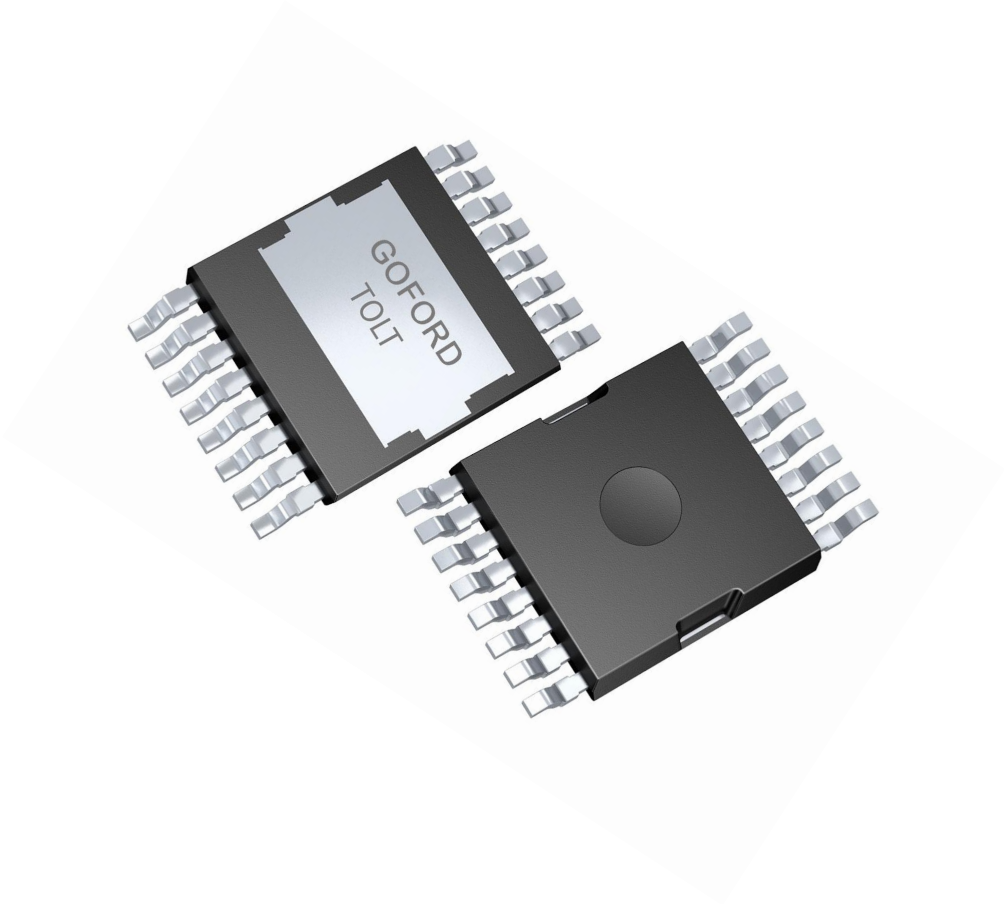
Introduction

- Features
- Advantages
- Dimension

Application

Development



Introduction

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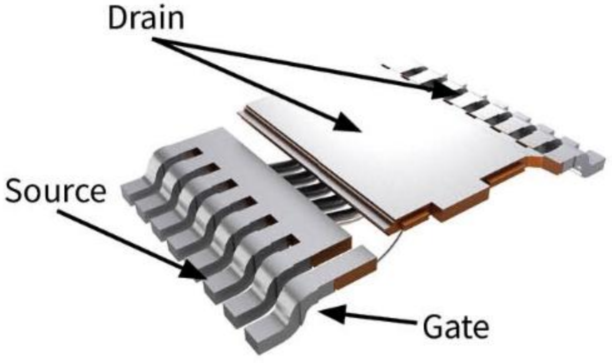
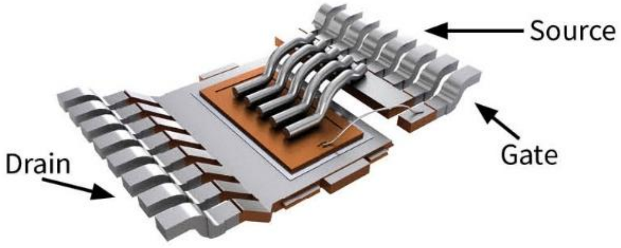
Features

- Low RDS(on)
- High current rating >300 A
- Top-side cooling
- Negative stand-off
- Sn-free exposed pad
- Gull wing



Top view w/o mould compoud

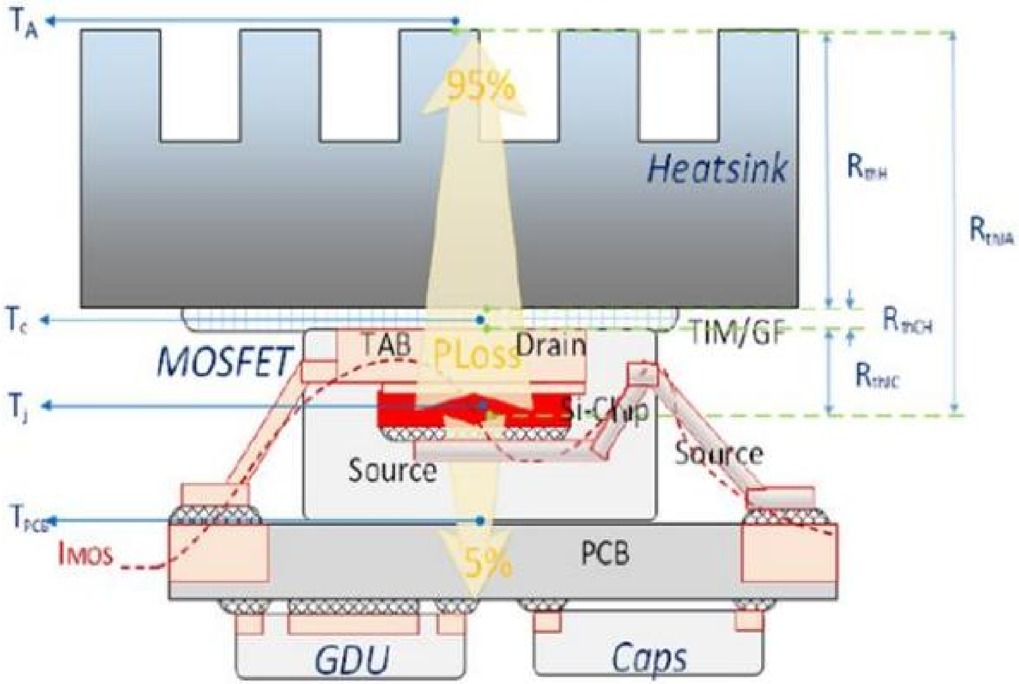


Bottom view w/o mould compoud

Introduction

Advantages

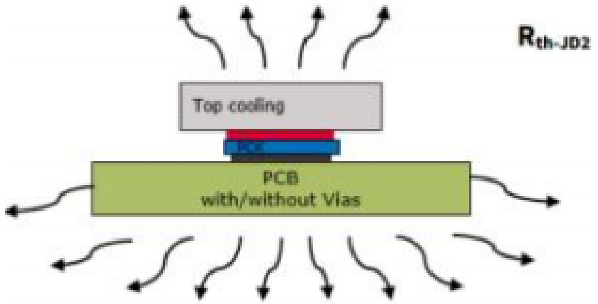
- Increased system efficiency enabling extended battery life time
- High power density
- Small profile, high current
- Superior thermal performance

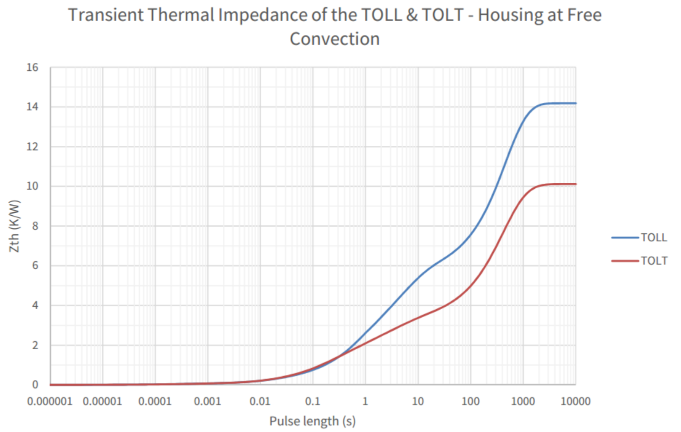


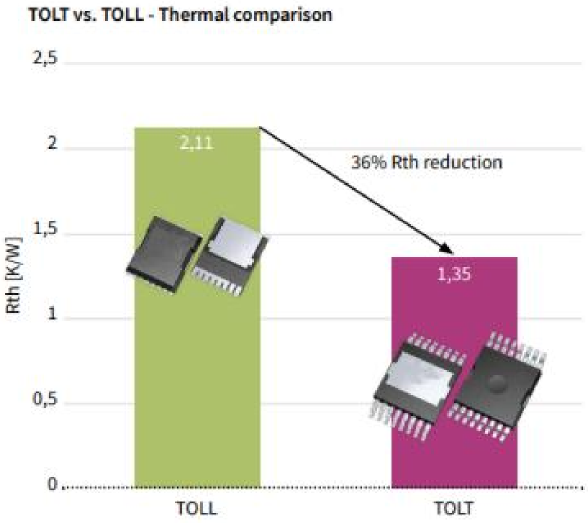
Introduction

Advantages

- Saving in cooling system
- Minimized thermal resistance to heatsink， RthJA 20% lower， RthJC 50% improved, Rth(J-heatsink) 36% reduced，increase the current capability







Introduction

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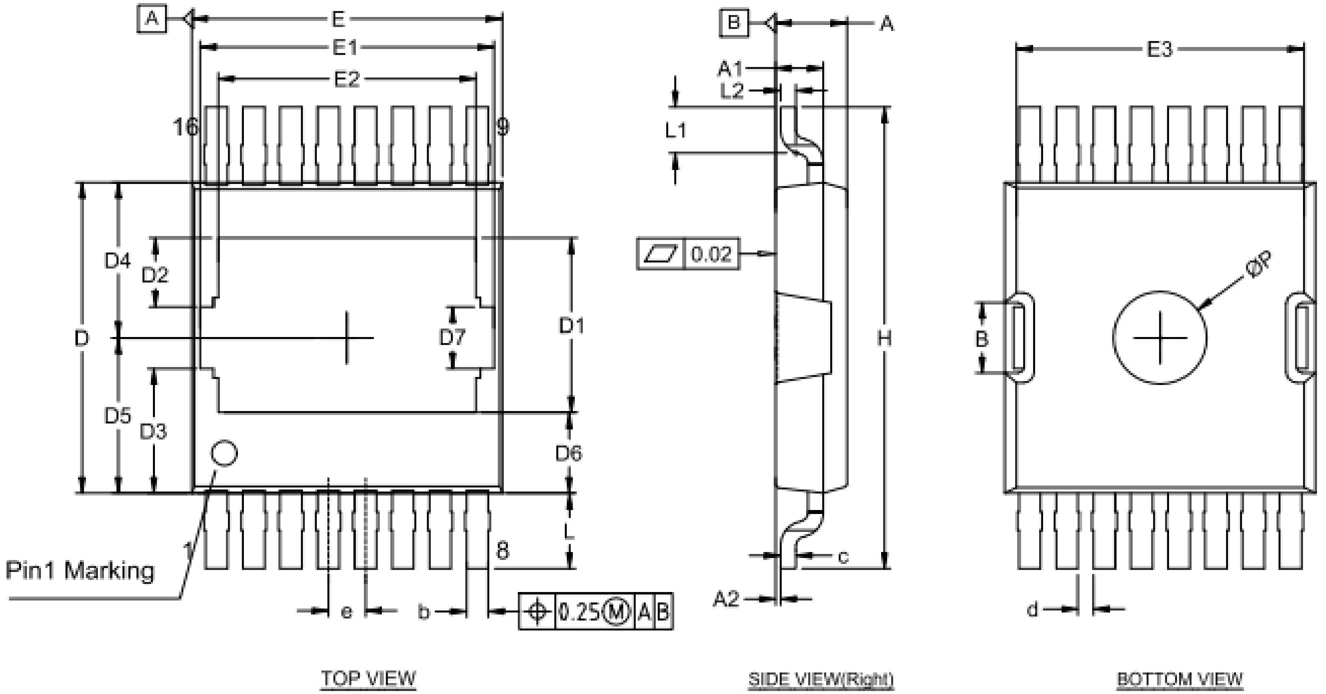
Dimension



TOP VIEW

SIDE VIEW(Right)

BOTTOM VIEW

SYMBOL \ DIM	MIN.	NOM.	MAX.
A	2.250	2.300	2.350
A1	1.440	1.540	1.640
A2	0.010	---	0.160
b	0.600	0.700	0.800
c	0.400	0.500	0.600
d	0.400	0.500	0.600
e	1.200 BSC		
D	10.00	10.100	10.300
D1	5.470	5.670	5.870
D2	2.040	2.240	2.440
D3	4.050 REF.		
D4	5.050 REF.		
D5	5.050 REF.		
D6	2.620 REF.		
D7	2.000 REF.		
E	9.700	10.000	10.100
E1	9.460 REF.		
E2	8.100	8.300	8.500
E3	9.07	9.270	9.470
H	14.800	15.000	15.200
L	2.250	2.450	2.650
L1	1.350	1.500	1.650
L2	0.500 BSC		
ØP	2.900	3.000	3.100
B	2.180	2.280	2.380

Application

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TOLT are ideal for applications which require high thermal performance， big current and small profile.

E scooter

LEV

Power Tools

BMS

Development of Toll package

- The TO-Leaded Topside cooling (TOLT) package expands the high-performance package line of the Power MOSFET family.
- The TOLT package is indeed a significant advancement in power MOSFET technology. It retains the high current and low profile benefits of the TOLL package, but with the added advantage of top-side cooling. This feature allows for superior thermal performance, which is crucial in high-power applications.
- This innovative packaged is a key feature that enables high current ratings greater than 300 A for high power density designs.

THANK YOU

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