



N-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	100 V
I_D	300 A
$R_{DS(ON)}$ (at $V_{GS}=10V$)	1.45m
$R_{DS(ON)}$ (at $V_{GS}=6V$)	1.9m
100% EAS Tested	
100% V_{DS} Tested	

General Description

Surface-mounted package
Excellent package for heat dissipation
High Density Cell Design for Low $R_{DS(on)}$
Moisture Sensitivity Level 1
Epoxy Meets UL 94 V-0 Flammability Rating

Applications

High power inverter system
Uninterruptible power

Typical Electrical and Thermal Characteristics Diagrams

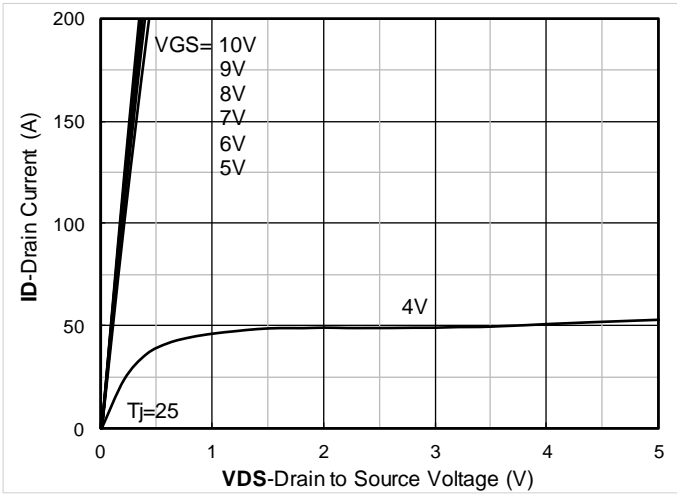


Figure 1. Output Characteristics

Figure 2. Maximum Transient Thermal Impedance

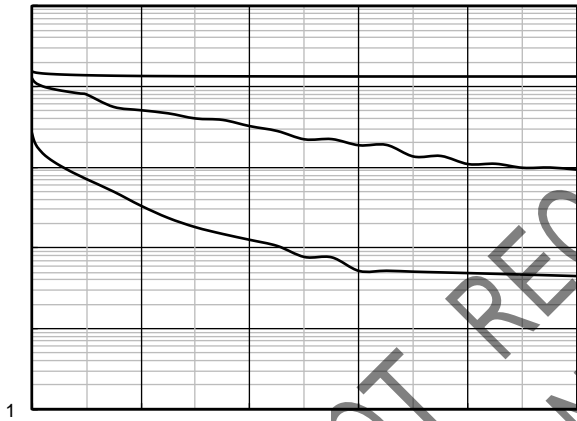


Figure 3. Capacitance Characteristics

Figure 4. Gate Charge

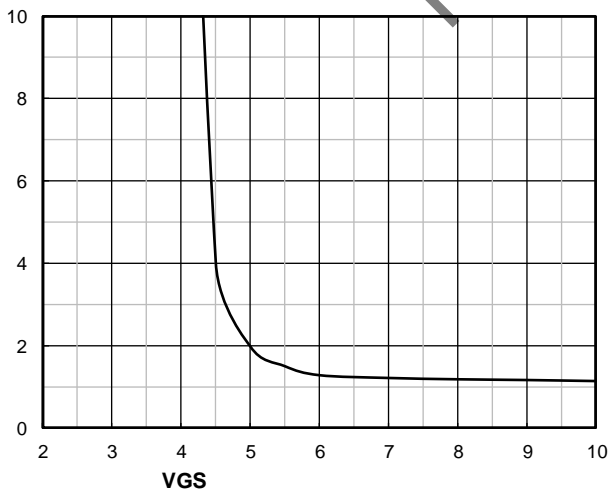


Figure 5. On-Resistance vs Gate to Source Voltage

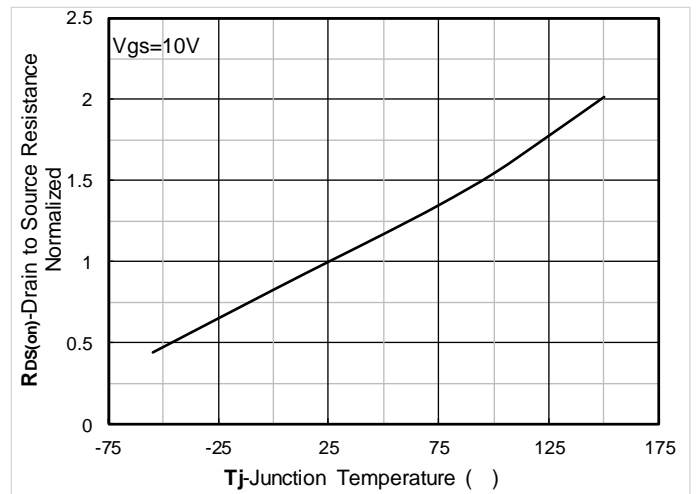


Figure 6. Normalized On-Resistance

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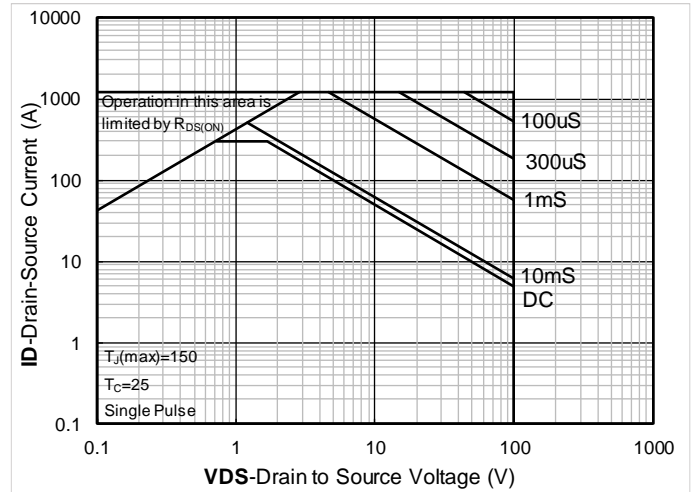
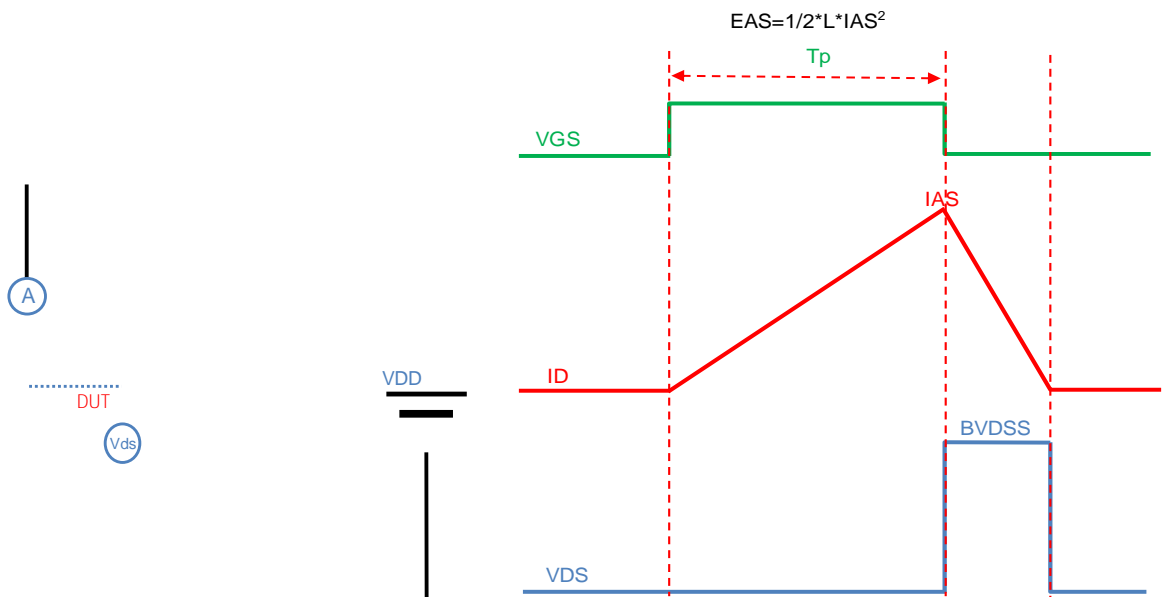


Figure 13. Maximum Transient Thermal Impedance

Figure 14. Safe Operation Area

Test Circuits & Waveforms





TOLL Package information

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	2.2	2.3	2.4
A1	1.7	1.8	1.9
b	0.7	0.8	0.9
b1	9.7	9.8	9.9
b2	1.1	1.2	1.3
c	0.4	0.5	0.6
D	10.28	10.38	10.48
D1	10.98	11.08	11.18
D2	3.2	3.3	3.4
D3	4.45	4.55	4.65
E	9.8	9.9	10
E1	8	8.1	8.2
e	1.2 BSC		
H	11.58	11.68	11.78
H1	6.95 BSC		
i	0.1 REF		
j	0.46 REF		
L	1.5	1.6	1.7
L1	0.6	0.7	0.8
L2	0.5	0.6	0.7
L3	0.3	0.4	0.5
Q	8 REF		
R	3.0	3.1	3.2

Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.03\text{mm}$.
3. The pad layout is for reference purposes only.

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