TOLL-8L N

N-Channel MOSFET in a TOLL-8L Plastic Package.

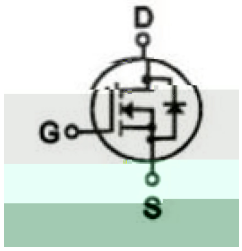
V_{DS}(V)=40V I_D=395A

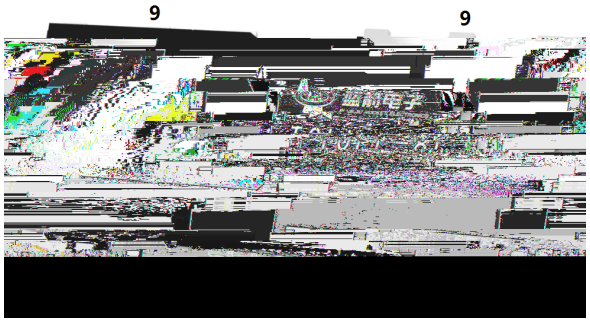
$R_{DS(ON)}$@10V≤1.3mΩ(Typ. 0.85mΩ)

HF Product.

-

Motor drivers, Battery management,DC - DC Converter.





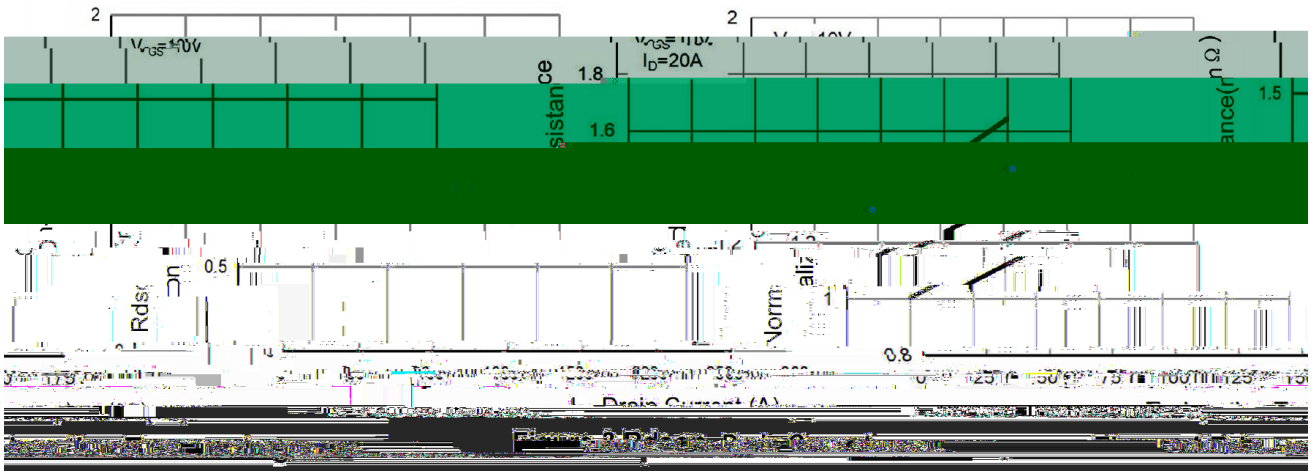
PIN1 G PIN2 3 4 5 6 7 8 S PIN9 D

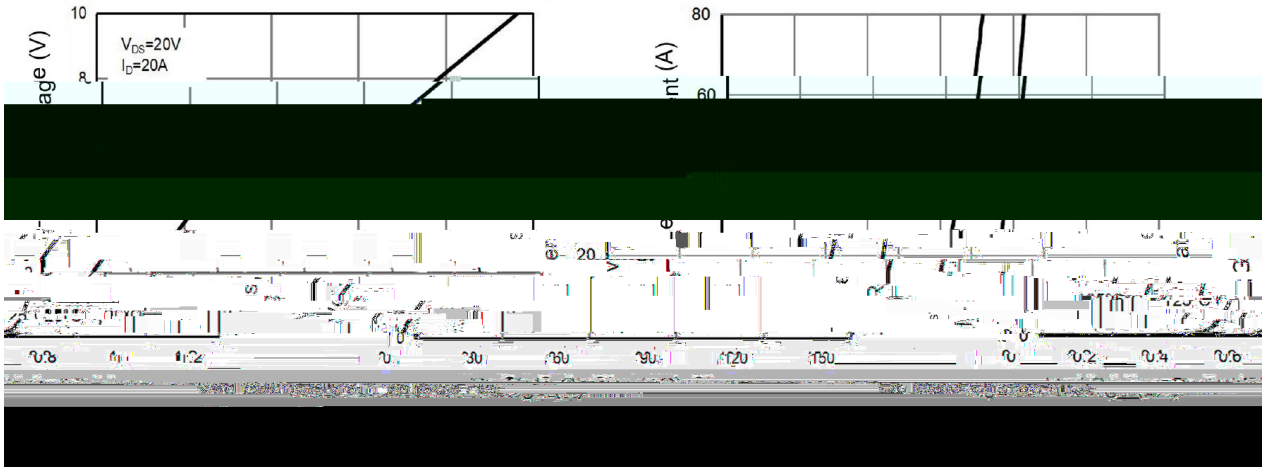
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	40	V
Drain Current - Continuous	I_D	395	A
Drain Current - Continuous	I_D(T_c=100)	250	A
Drain Current – Pulsed	I_{DM}	1580	A
Gate-Source Voltage	V_{GS}	± 20	V
Power Dissipation	P_{tot}	272	W
Single Pulse Avalanche Energy	E_{AS}	1369	mJ
Junction and Storage Temperature Range	T_j, T_{stg}	-55 to 150	
Thermal resistance, junction - ambient			

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=10V V_{DS}=20V R_G=1.6Ω		32		ns
Turn-On Rise Time	t_r			65		
Turn-Off Delay Time	$t_{d(off)}$			75		
Turn-Off Fall Time	t_f			40		


160
5.5V
5V
6V
4.5V
10V
80
V_{DS}=15V
60
140
120


2
1.8
1.6
I_D=20A
1.5
0.5
1
0.8


10
V_{DS}=20V
I_D=20A
80
60

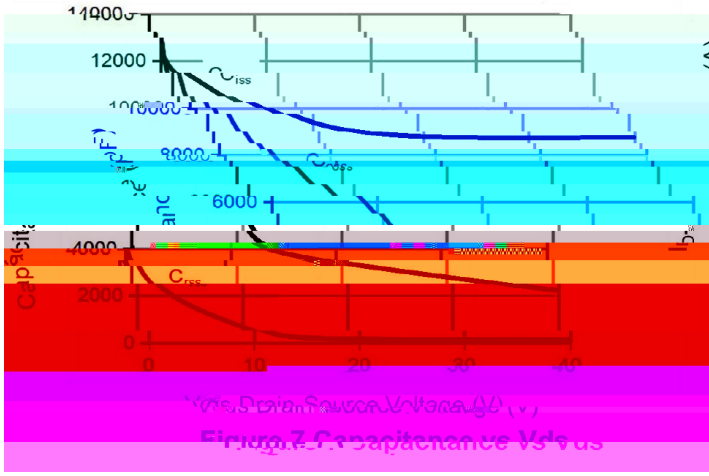


Figure 7 Capacitance vs Vds

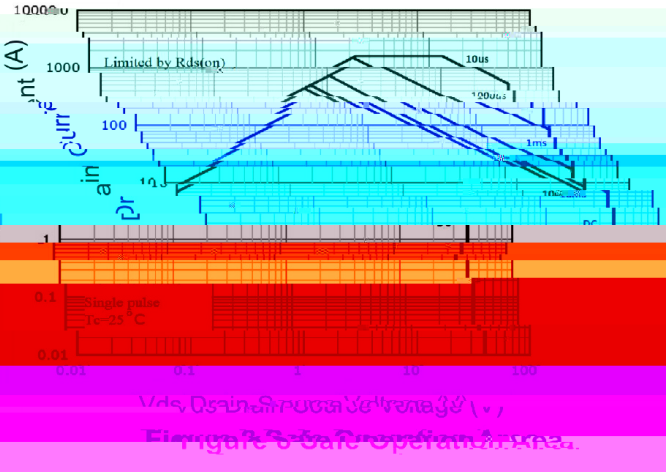
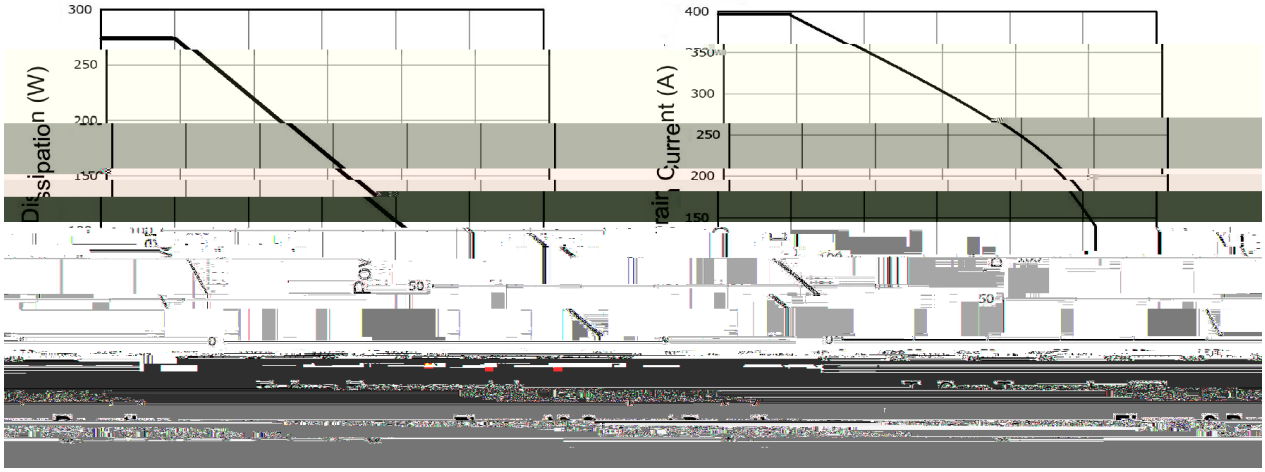
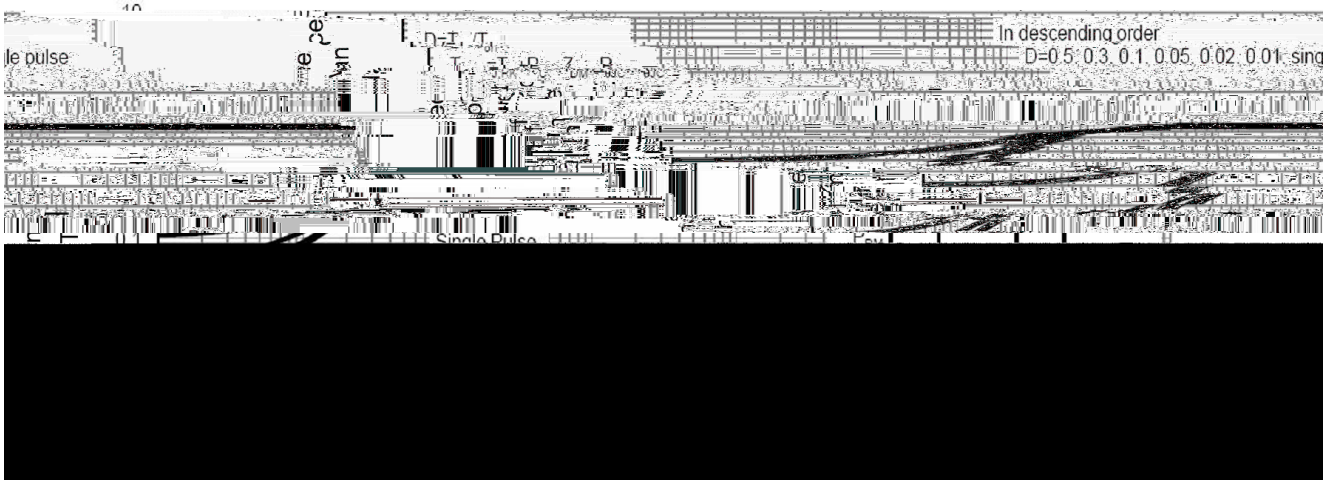
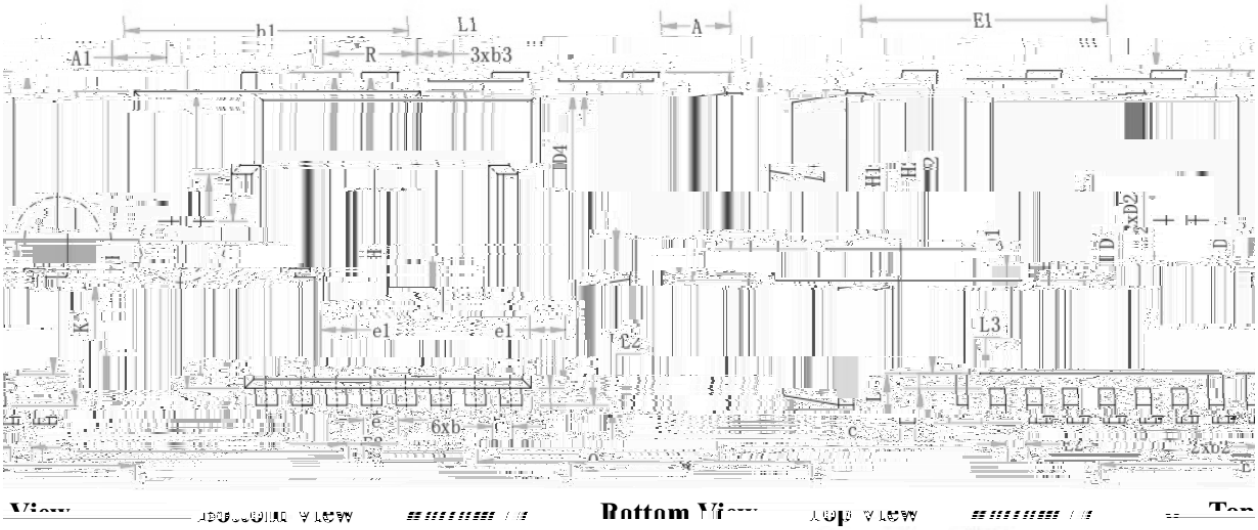


Figure 8 Safe Operation Area

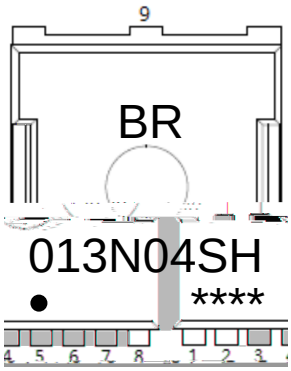








Symbol	Min	Typ	Max	Symbol	Min	Typ	Max
A	2.25	2.30	2.35	E	9.85	9.90	9.95
A1	1.75	1.80	1.85	E1	8.00	8.10	8.2
b	0.65	0.70	0.75	E2	0.65	0.70	0.7
b1	9.75	9.80	9.85	H1	11.60	11.70	
b2	0.70	0.75	0.80	H1	6.95 BSC		
b3	1.15	1.20	1.25	H2	3.90 BSC		
c	0.45	0.50	0.55	K	3.10 REF		
1.75	D	10.35	10.40	10.45	L	1.55	1.65
0.75	D1	11.00	11.10	11.20	L1	0.65	0.70
0.60	0.70	D2	3.25	3.30	3.35	L2	0.50	0.5
0.50	0.60	D4	4.50	4.55	4.60	L3	0.40	0.5
5.95 REF		e	1.20 BSC					



BR

013N04SH

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Note

BR	Company Code
013N04SH	Product Type Code
****:	Lot No. Code, code change with Lot No.