TOLL-8L N

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

V_{DS}(V)=100V I_D=300A

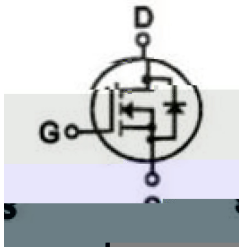
$R_{DS(ON)}$@10V≤1.3mΩ(Typ. 1.1mΩ)

$R_{DS(ON)}$@6V≤2.0mΩ(Typ. 1.5mΩ)

HF Product.

LCDM

LCD TV appliances,LCDM appliances,High power inverter system.





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

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	100	V
Drain Current(DC)***	I_D(T_C=25℃)	300	A
	I_D(T_C=100℃)	215	A
Drain Current – Pulsed*,**	I_{DM}	1200	A
Gate-Source Voltage	V_{GS}	¤ 20	V
Power Dissipation	P_{tot}	250	W
Continuous-Source Current	I_S	400	A
Single Pulse Avalanche Energy(V_{DD}=50V,L=1.0mH)	E_{AS}	2592	mJ
Junction and Storage Temperature Range	T_j, T_{stg}	-55 to 175	
Thermal resistance, junction – ambient**	$R_{\theta JA}$	46	/W
Thermal resistance, junction – case**	$R_{\theta JC}$	0.6	

Notes:

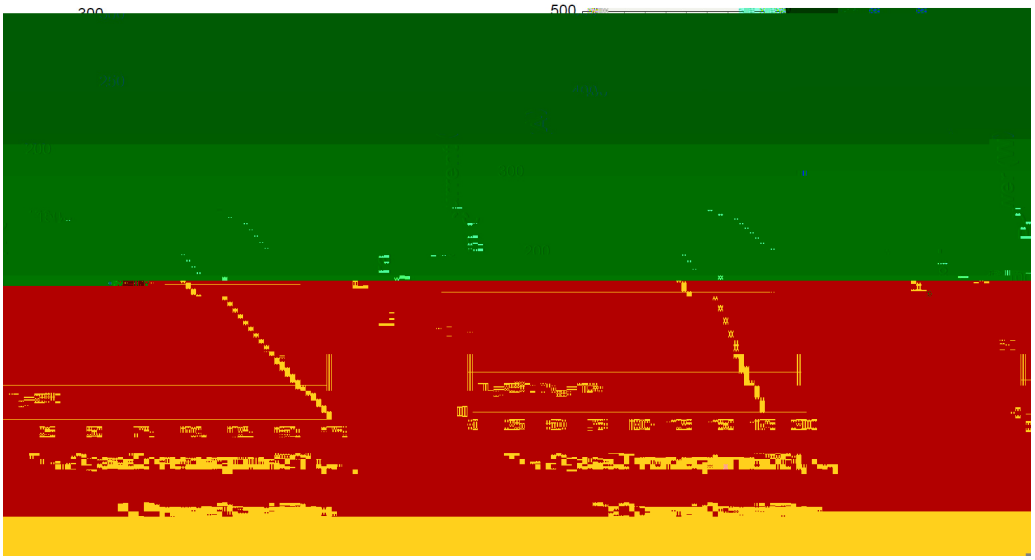
* Pulse width ≤ 300 μs, duty cycle ≤ 2 %

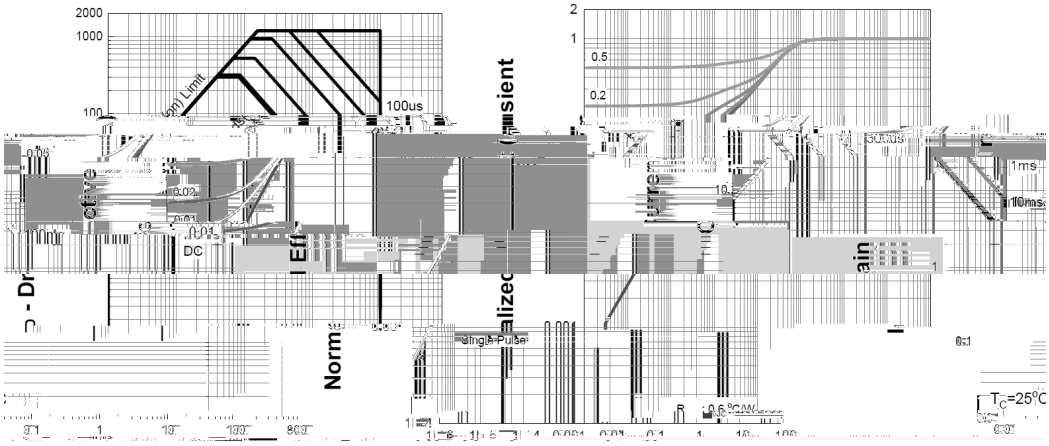
** Surface Mounted on 1 in² pad area,t ≤ 10sec

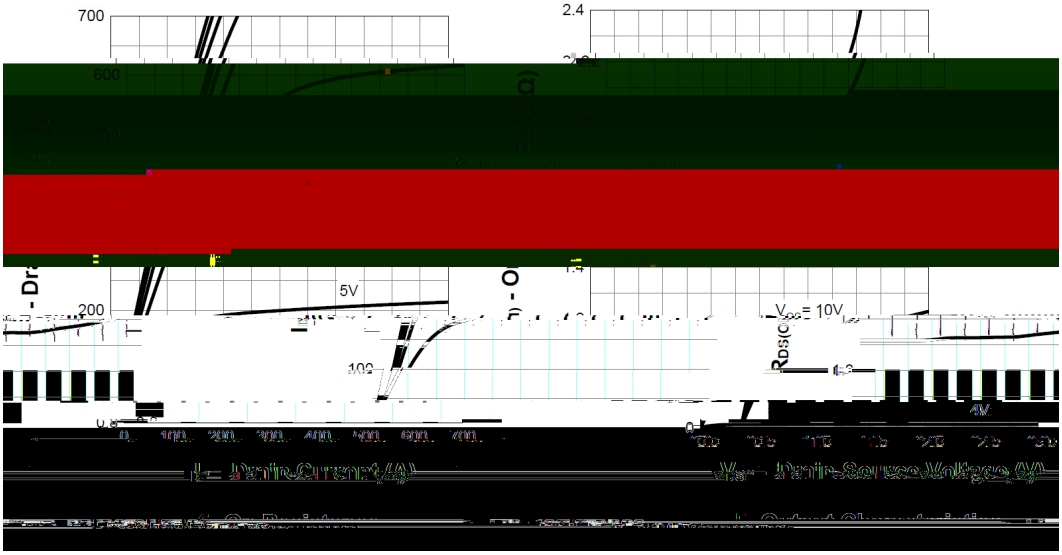
*** Limited by bonding wire

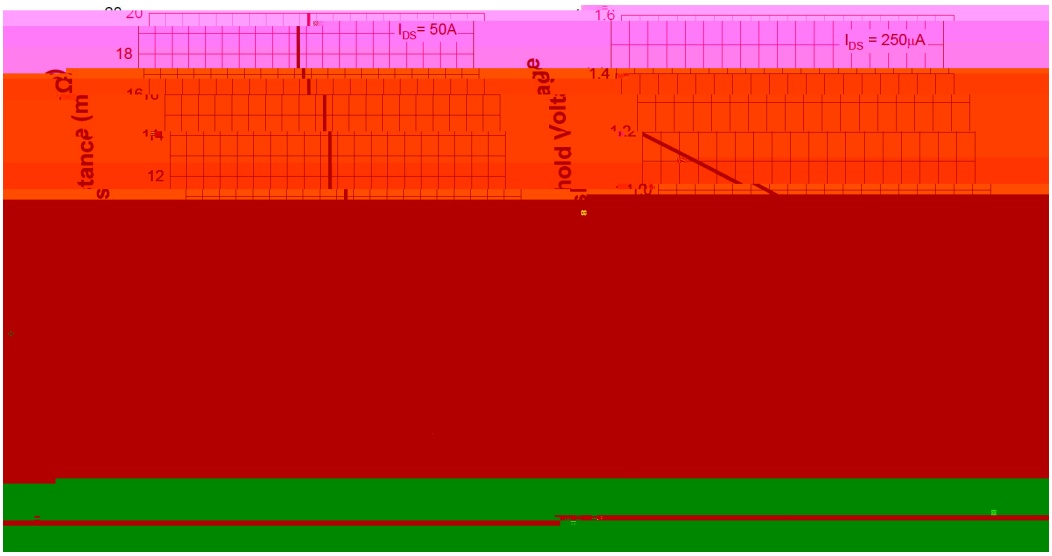
Parameter	Symbol	Test Conditions	Min

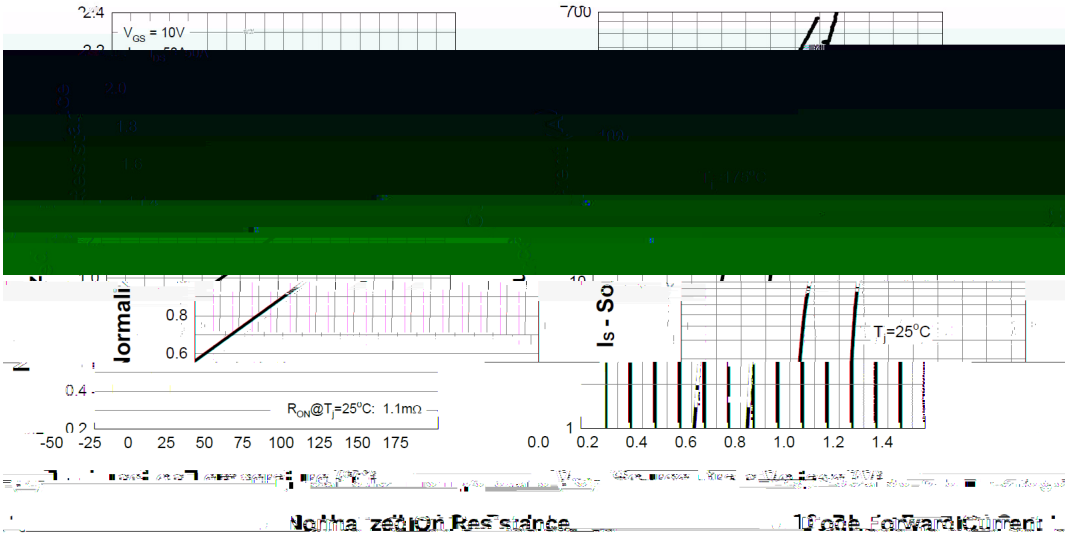
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	V_{GS}=10V, V_{DS}=50V I_{DS}=50A		196		nC
Gate Source Charge	Q_{gs}			68		
Gate Drain Charge	Q_{gd}			35		
Turn-On Delay Time	$t_{d(on)}$			92		

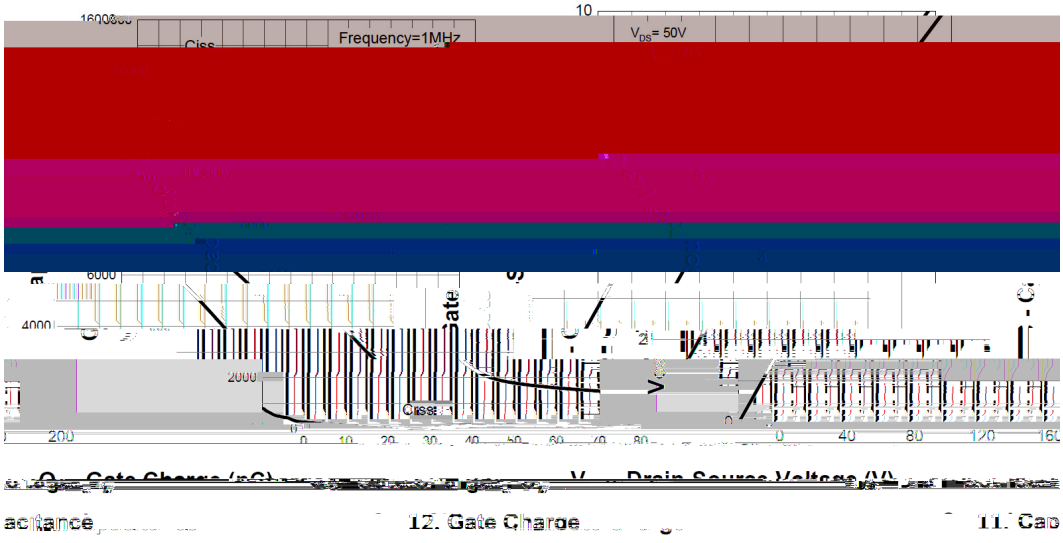


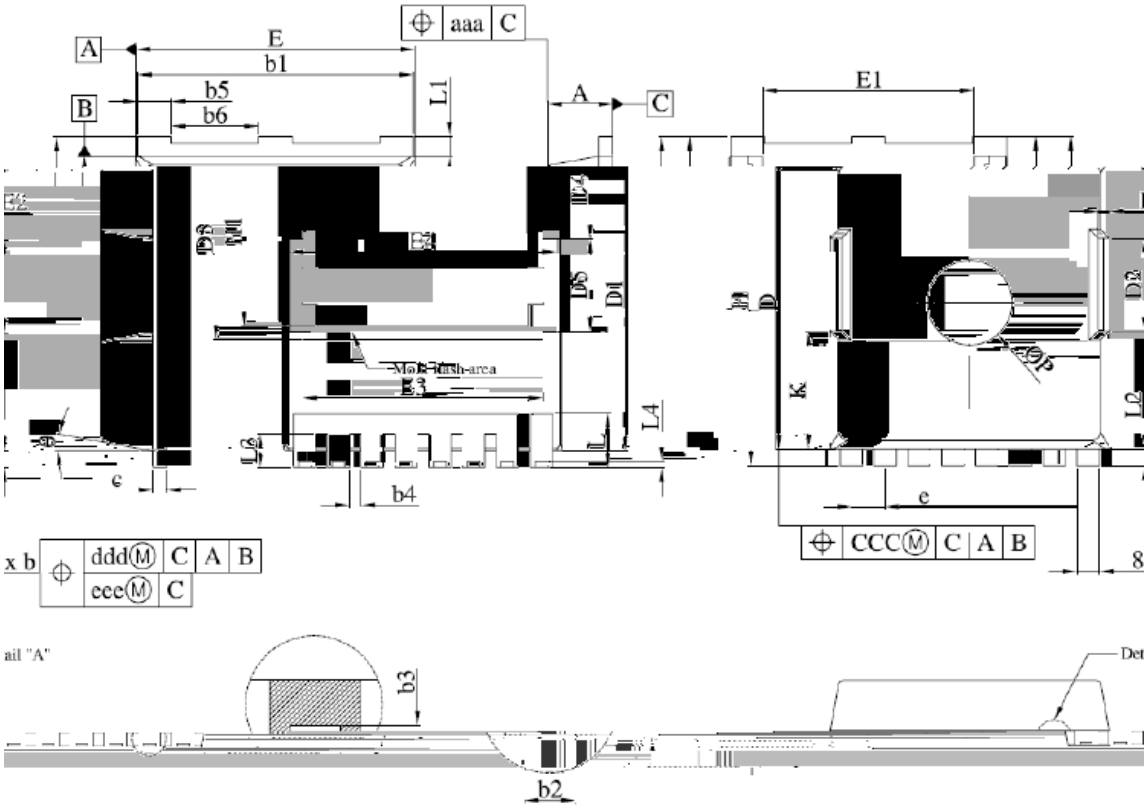

2000
1000
100
100us
1ms
10ms
DC
Single Pulse
T_C=25°C
Square Wave Pulse Duration (sec)

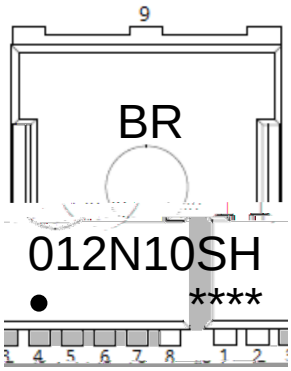

700
600
200
5V
4V
V_{GS}= 10V


I_DS= 50A
I_DS = 250μA


V_GS = 10V
R_ON@T_J=25°C: 1.1mΩ
T_J=25°C


Frequency=1MHz
V_DS= 50V
Ciss
Coss


aaa C
A
B
E
b1
b5
b6
L1
A
C
E1
D3
D2
D1
E3
E2
Mold flash-area
L4
L5
b4
e
L2
K
θ1
θ2
x b
ddd M C A B
eee M C
CCC M C A B
8
ail "A"
b3
b2
Det



BR

012N10SH

****

Note

BR	Company Code
012N10SH	Product Type Code
****:	Lot No. Code, code change with Lot No.

Temperature Profile for IR Reflow Soldering(Pb-Free)