TOLL-8L N

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

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

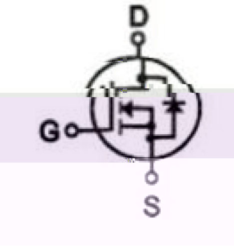
$R_{DS(ON)}$@10V≤1.3mΩ(Typ. 1.1mΩ)

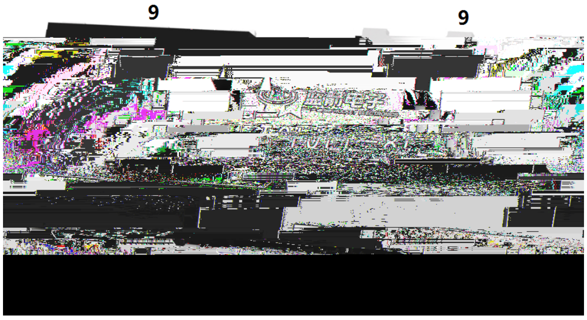
$R_{DS(ON)}$@6V≤2.0mΩ(Typ. 1.5mΩ)

HF Product.

LCDM

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





PIN1‛ G PIN2 ä 3 ä 4 ä 5 ä 6 ä 7 ä 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=25Ņ)	300	A
	I_D(T_C=100Ņ)	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 %

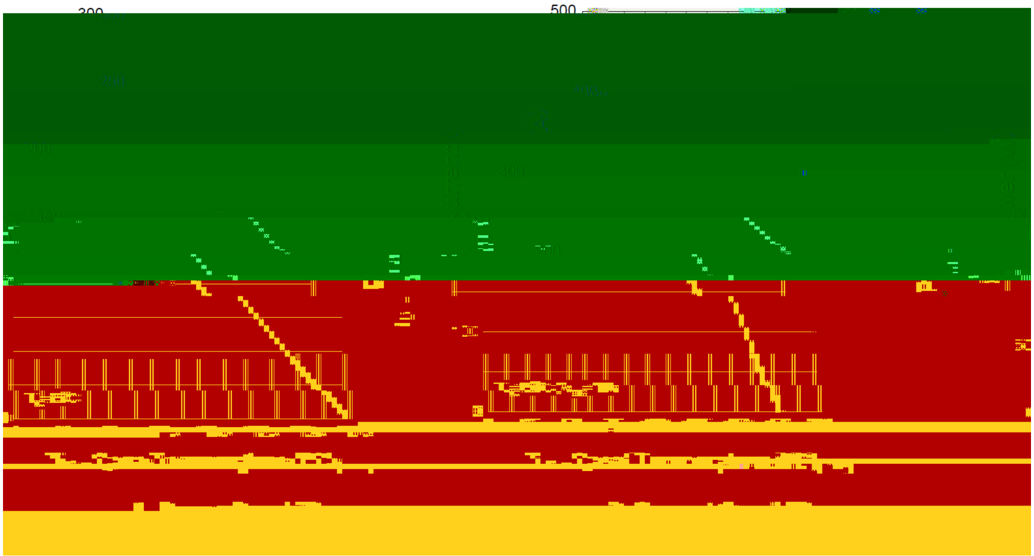
** Surface Mounted on 1 in² pad area,t ≤ 10sec

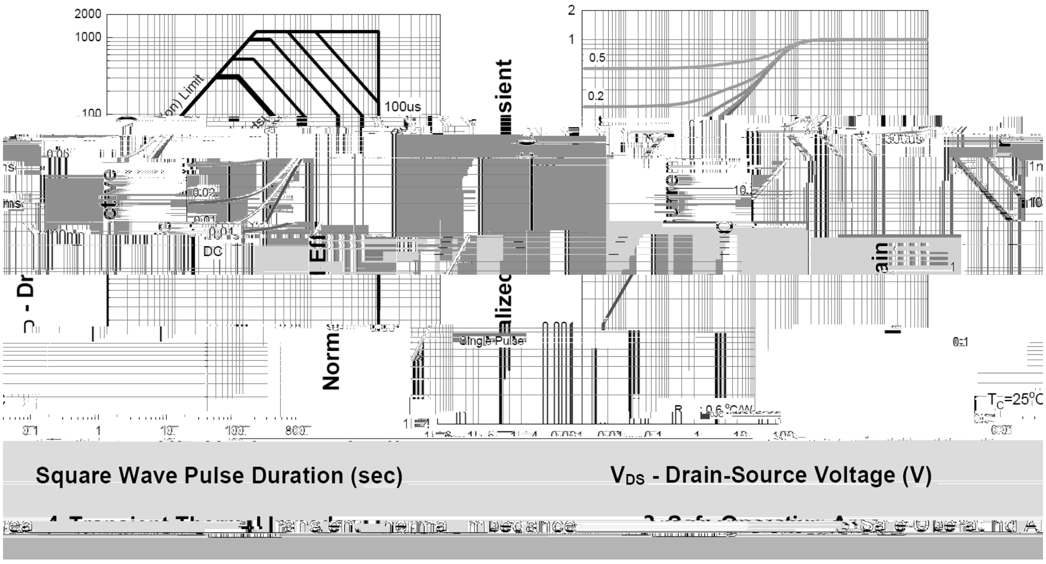
*** Limited by bonding wire

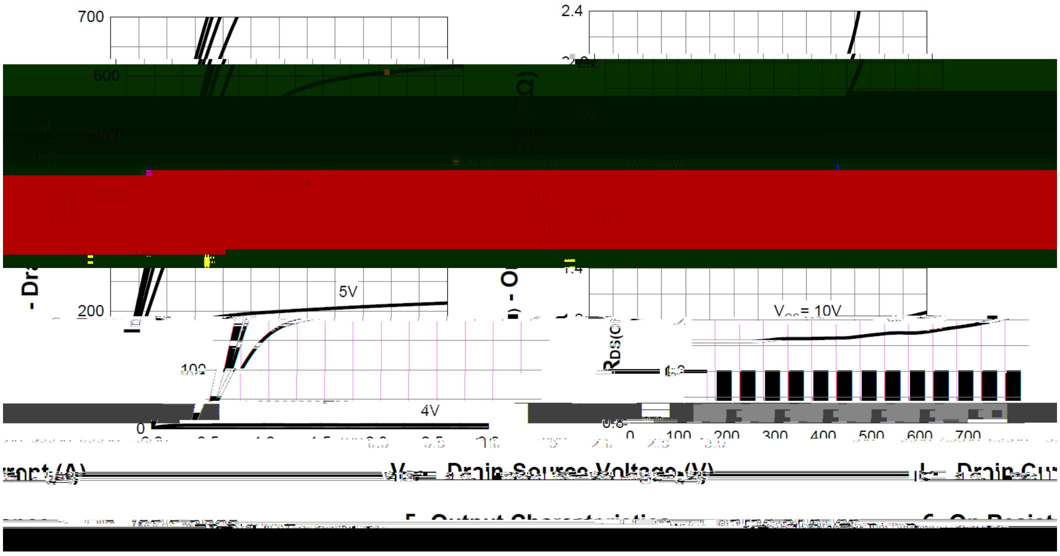
Parameter	Symbol	Test Conditions	Min

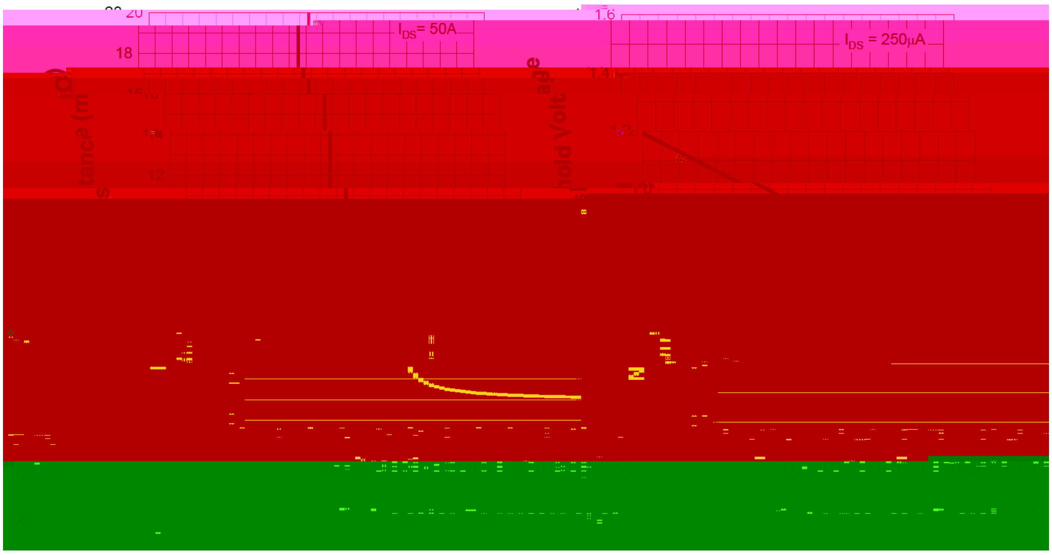
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	V_{GS}=10V, V_{DS}=50V I_{DS}=50A		196		nC
Gate Source Charge	Q_{gs}			68		
Gate Drain Charge	Q_{gd}			35		

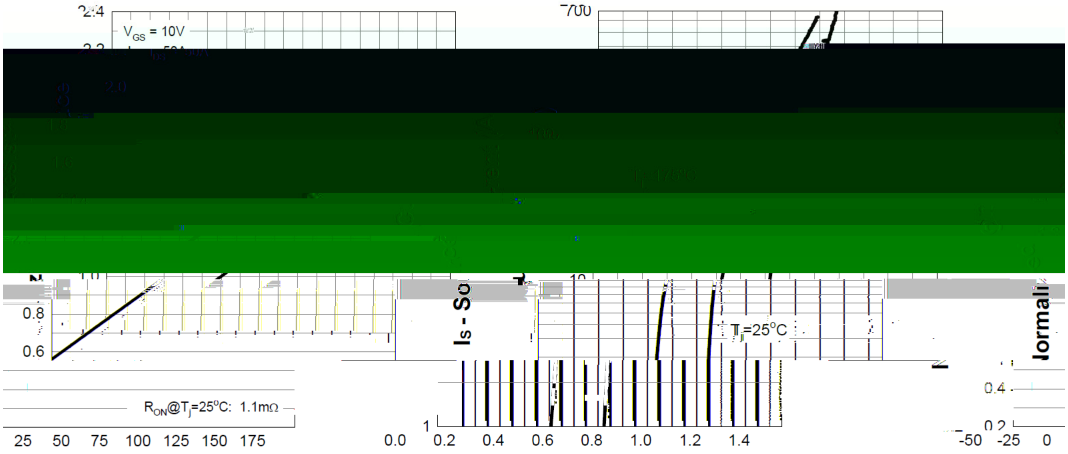
Turn-On Delay Time td8 0 0 10.5 55.98 646.4003 Tm-.0008 Tc.0031 Twc) Tc15.0613 Tw( )1240 92(rn-On Del)-7 G S




2000
1000
100
100us
DC
0.02
0.01
Single Pulse
T_C=25°C
2
1
0.5
0.2
Square Wave Pulse Duration (sec)
V_DS - Drain-Source Voltage (V)

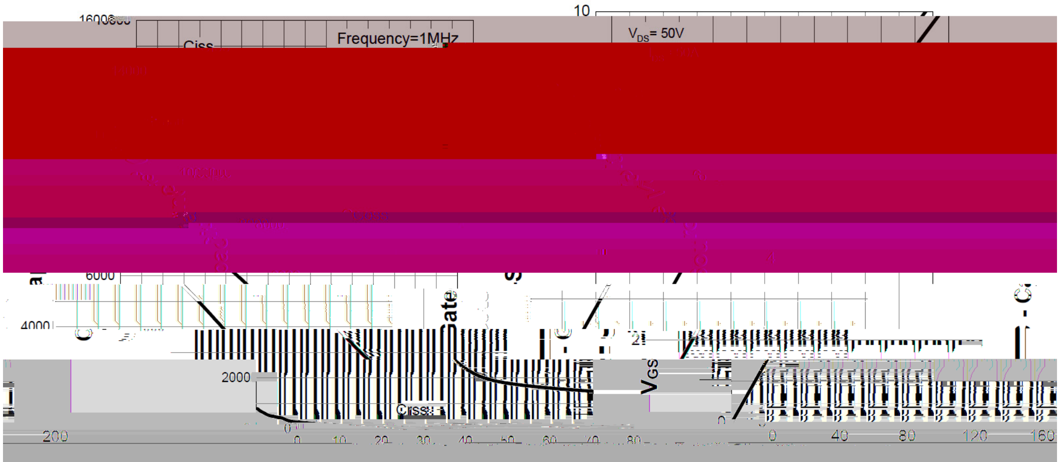

700
600
200
5V
4V
0
2.4
V_GS= 10V
0.8
0
100
200
300
400
500
600
700





Normalization On Resistance

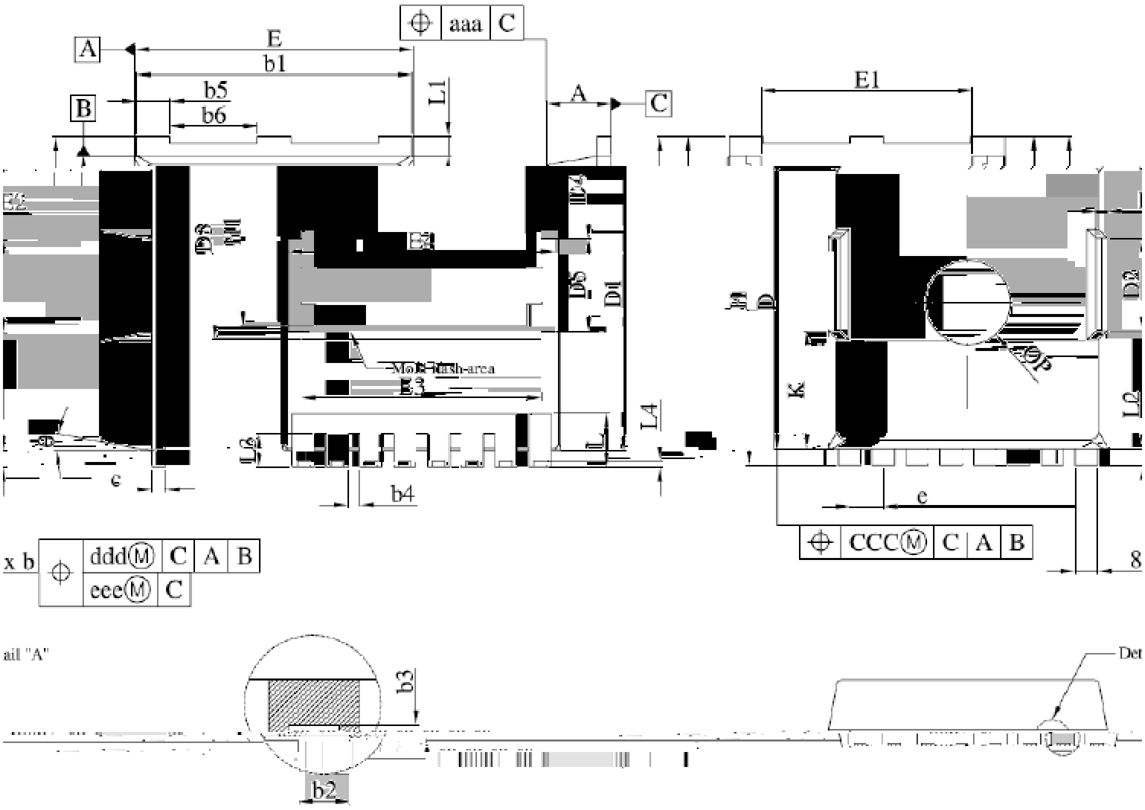
Diode Forward Current

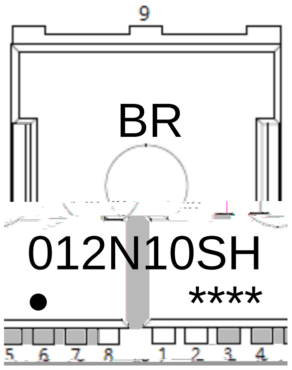


pacitance

12. Gate Charge

11. Ca


aaa
C
A
E
b1
b5
b6
B
L1
A
C
E1
E2
D3
D4
E2
D5
D1
D
L
Mold flash area
E3
L2
L4
b4
e
K
ØP
D2
L2
e
ddd Ⓜ C A B
eee Ⓜ C
x b
CCC Ⓜ C A B
8
ail "A"
b3
b2
Det



BR

012N10SH

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Note

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

Temperature Profile for IR Reflow Soldering(Pb-Free)