

/ Descriptions

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

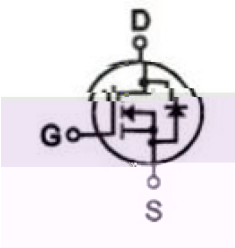
/ Features

$V_{DS}(V)=100V$ $I_D=300A$
 $R_{DS(ON)}@10V\leq 1.3m\Omega$ (Typ. 1.1m Ω)
 $R_{DS(ON)}@6V\leq 2.0m\Omega$ (Typ. 1.5m Ω)
HF Product.

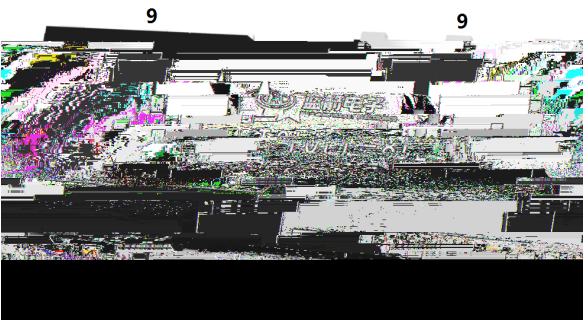
/ Applications

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

/ Equivalent Circuit



/ Pinning



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

/ Marking

See Marking Instructions.



Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	100	V
Drain Current(DC) ^{***}	$I_D(T_C=25^\circ\text{N})$	300	A
	$I_D(T_C=100^\circ\text{N})$	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($V_{DD}=50\text{V}, L=1.0\text{mH}$)	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 $\leq 300 \mu\text{s}$, duty cycle $\leq 2 \%$ ** Surface Mounted on 1 in² pad area, $t \leq 10\text{sec}$

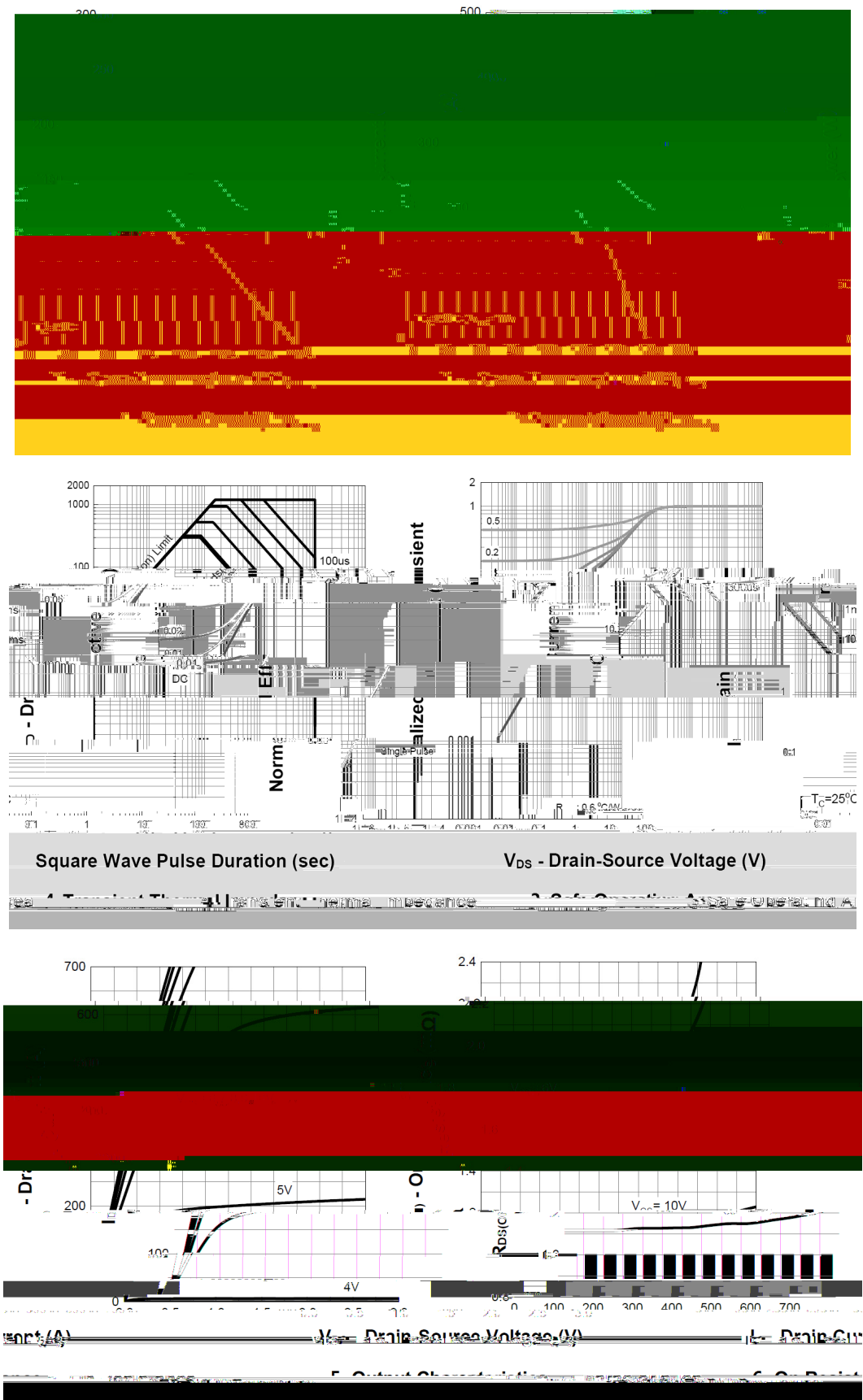
*** Limited by bonding wire

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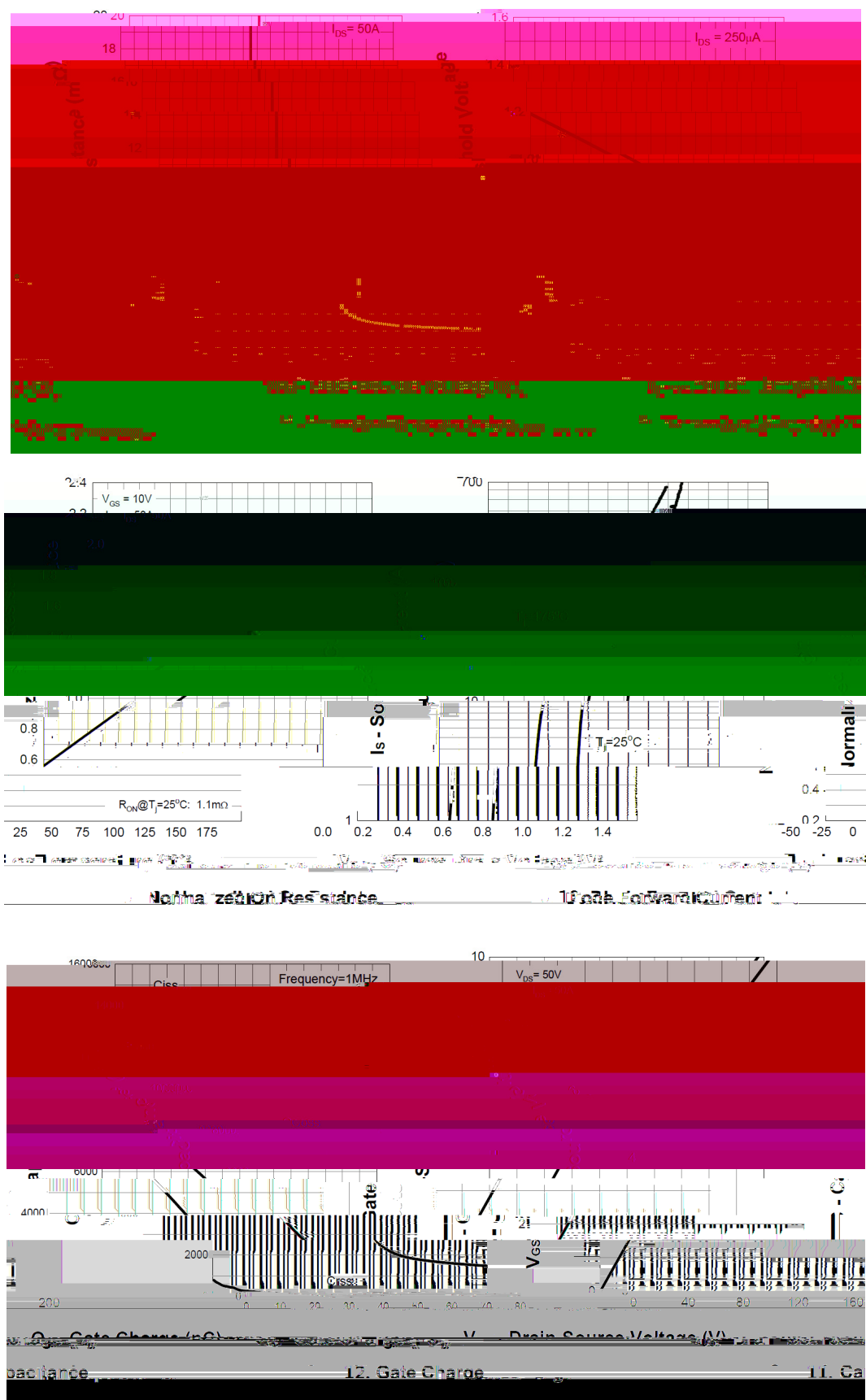
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=10V, \quad V_{DS}=50V$ $I_{DS}=50A$		196		nC
Gate Source Charge	Q_{gs}			68		
Gate Drain Charge	Q_{gd}			35		

Turn-On Delay Time $t_{d80} 0.010.555.98646.4003Tm-.0008Tc.0031Twc)Tc15.0613Tw()124092(rn-On Del)-7GS$

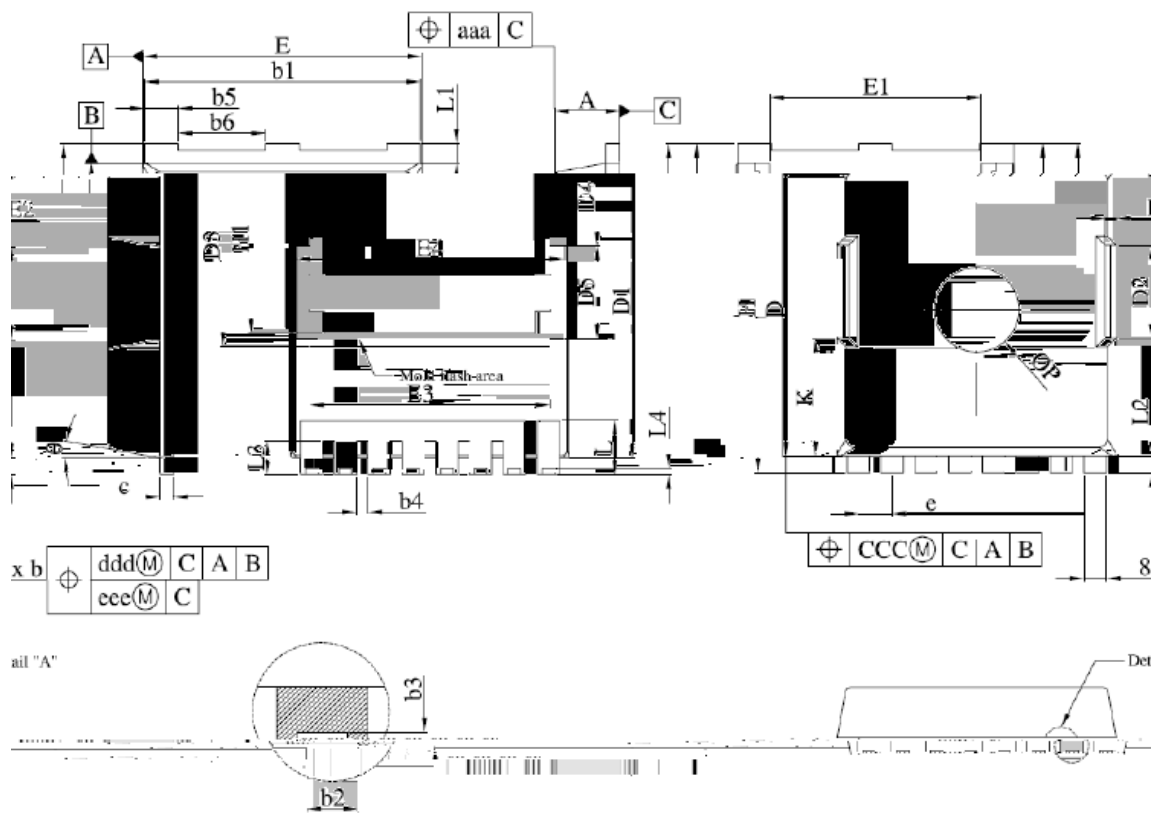
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve

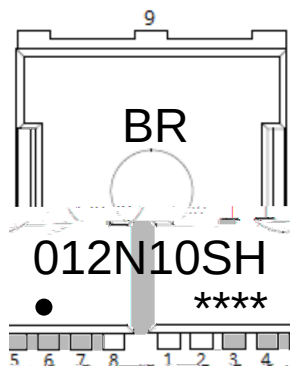


/ Package Dimensions



Symbol	
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/ Marking Instructions



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)**