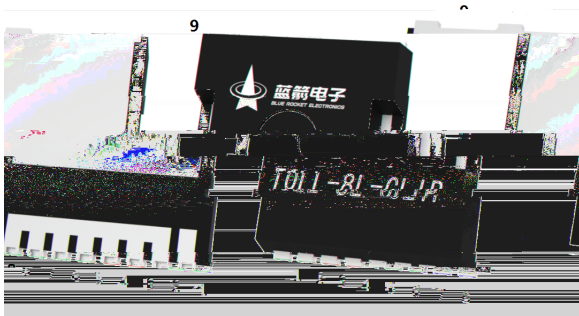
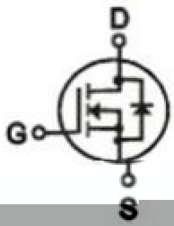


Rev.C Jun.-2025

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

$V_{DS}(V)=60V$   $I_D=354A$   
 $R_{DS(ON)}@10V \leq 0.98m\Omega$  (Typ.  $0.82m\Omega$ )  
 HF Product.

BMS, High power inverter system, Drones, Light electric vehicles.



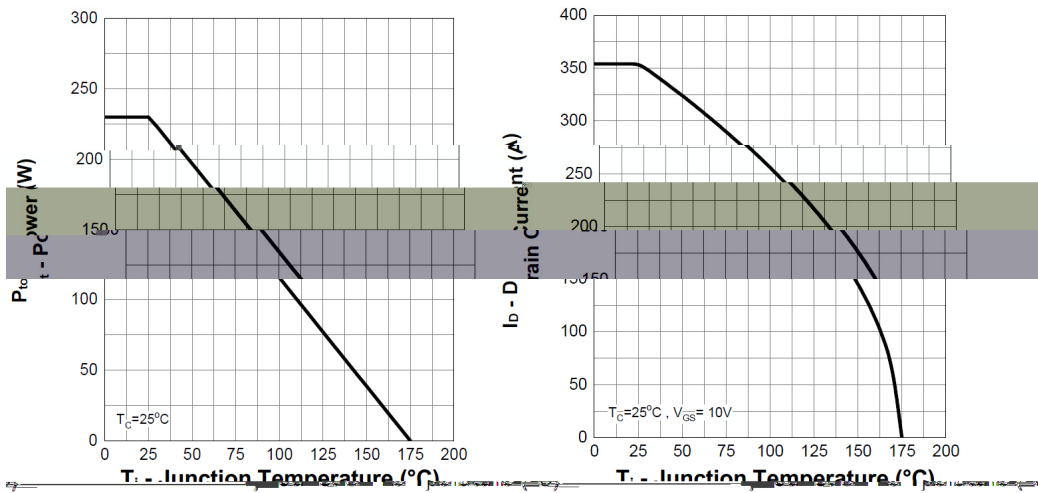
PIN1: G    PIN2、3、4、5、6、7、8: S    PIN9: D

See Marking Instructions.

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		$V_{DS}$	60	V
Drain Current - Continuous		$I_D$	354	A
Drain Current - Continuous		$I_D(T_c=100^\circ\text{C})$	251	A
Drain Current – Pulsed		$I_{DM}$	1416	A
Gate-Source Voltage		$V_{GS}$	$\pm 20$	V
Power Dissipation		$P_{tot}$	230	W
Continuous-Source Current		$I_S(T_c=25^\circ\text{C})$	354	A
Single Pulse Avalanche Energy(L=1.0mH)		$E_{AS}$	1250	mJ
Junction and Storage Temperature Range		$T_j, T_{stg}$	-55 to 175	
Thermal resistance, junction - ambient	Steady-State	$R_{\theta JA}$	44	/W
Thermal resistance, junction - case	Steady-State	$R_{\theta JC}$	0.65	

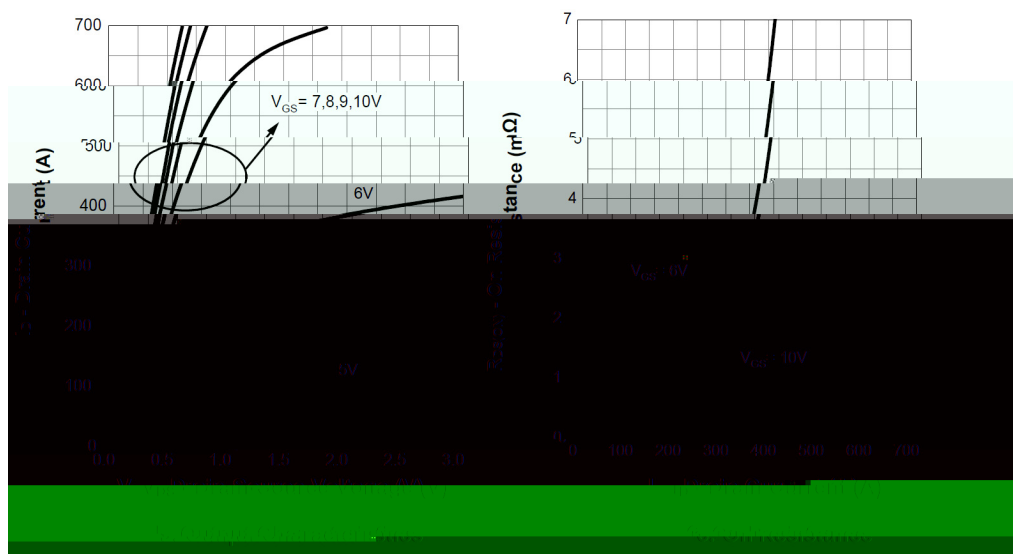
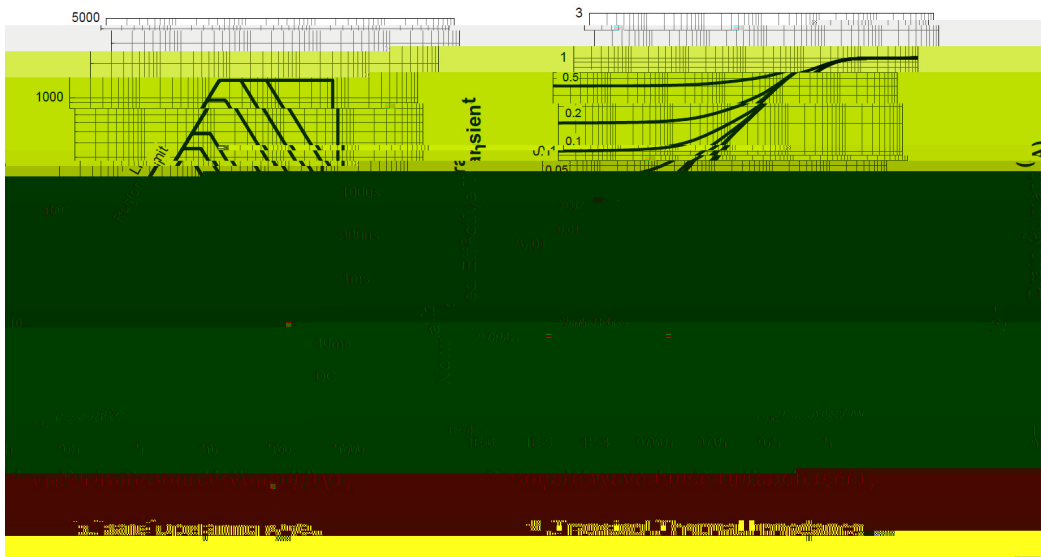
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$I_D=250\mu\text{A}, V_{GS}=0\text{V}$	60			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=48\text{V}, V_{GS}=0\text{V}$			1	$\mu\text{A}$
Gate-Body leakage current	$I_{GSS}$	$V_{DS}=0\text{V}, V_{GS}=\pm 20\text{V}$			$\pm 100$	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$	2.0		4.0	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=10\text{V}, I_D=50\text{A}$		0.82	0.98	m
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=6\text{V}, I_D=30\text{A}$		1.52	1.98	
Diode Forward Voltage	$V_{SD}$	$I_S=50\text{A}, V_{GS}=0\text{V}$			1.3	V
Input Capacitance	$C_{iss}$	$V_{DS}=30\text{V}, V_{GS}=0\text{V}$ $f=1.0\text{MHz}$		6108		pF
Output Capacitance	$C_{oss}$			2088		
Reverse Transfer Capacitance	$C_{rss}$			87		
Total Gate Charge	$Q_g$	$V_{GS}=10\text{V}, I_{DS}=50\text{A}$ $V_{DS}=30\text{V}$		151		nC
Gate Source Charge	$Q_{gs}$			34		
Gate Drain Charge	$Q_{gd}$			35		

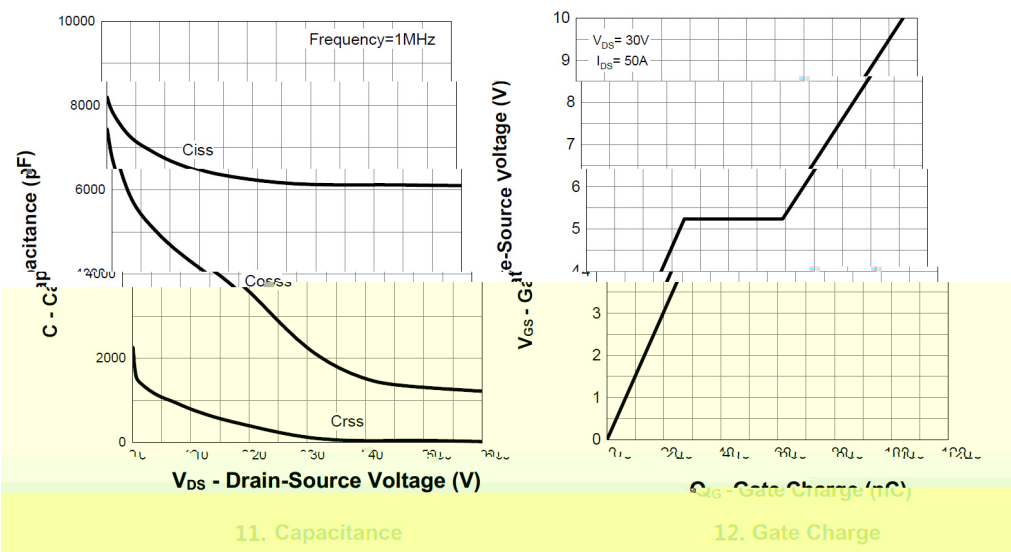
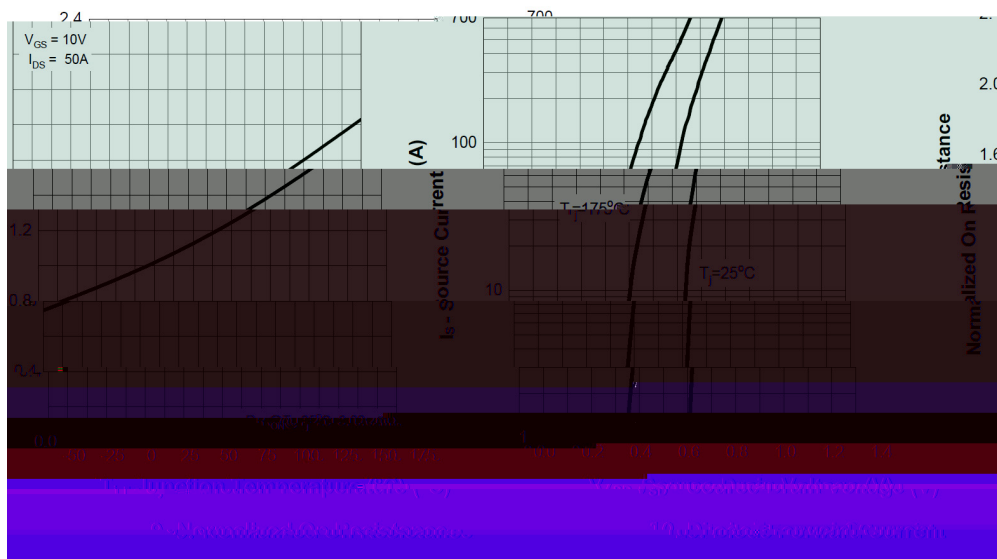
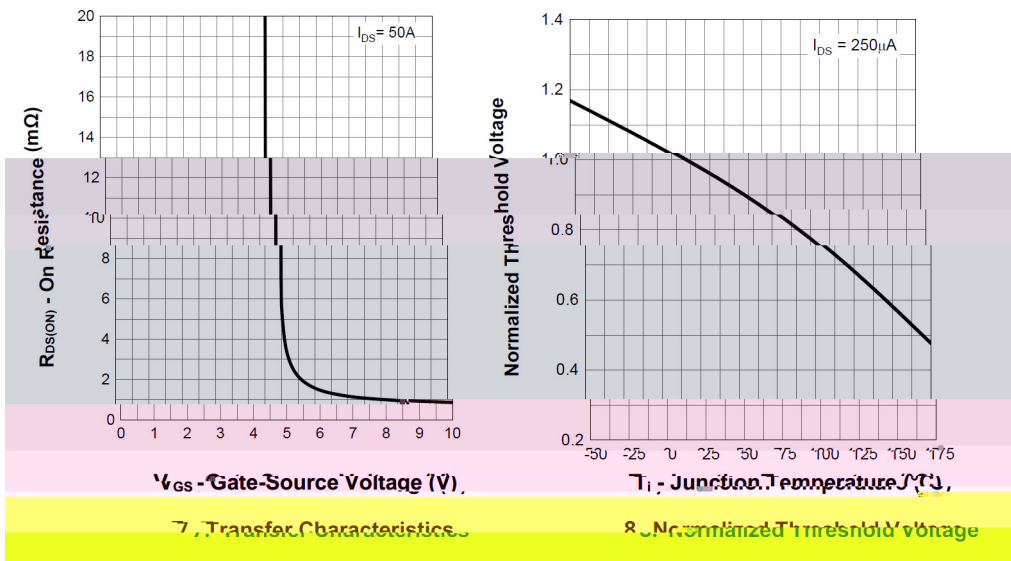
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GEN}=10V$ $V_{DS}=30V$ $R_L=0.6\Omega$ $R_G=3.9\Omega$ $I_{DS}=50A$		25		ns
Turn-On Rise Time	$t_r$			112		
Turn-Off Delay Time	$t_{d(off)}$			70		
Turn-Off Fall Time	$t_f$			72		
Reverse Recovery Time	$t_{rr}$			92		nS
Reverse Recovery Charge	$Q_{rr}$			105		nC



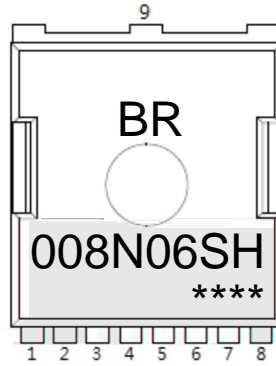
1. Power Capability

2. Current Capability









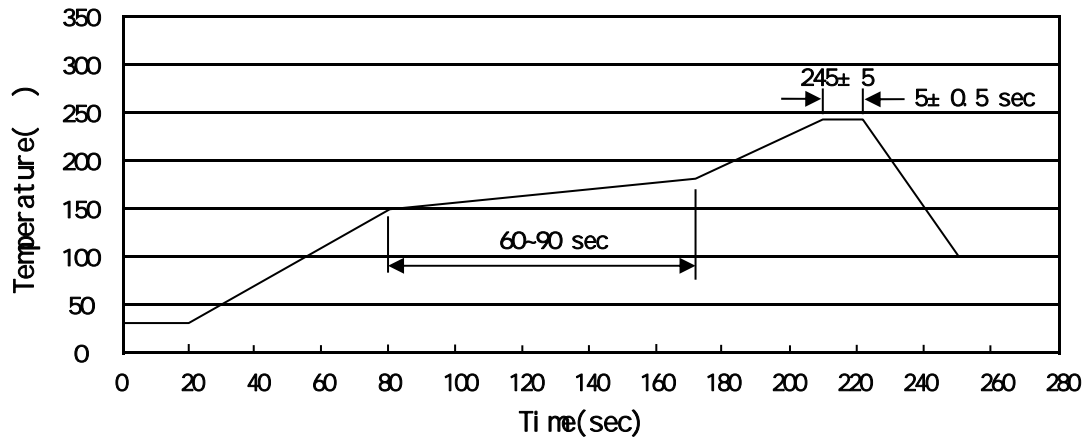
008N06SH

Note

BR            Company Code

008N06SH    Product Type Code

\*\*\*\*:         Lot No. Code, code change with Lot No.



Note:

- |   |     |     |    |          |   |
|---|-----|-----|----|----------|---|
| 1 | 150 | 180 | 60 | 90sec;   | 1.Preheating:150~180 , Time:60~90sec.   |
| 2 | 245 | 5   | 5  | 0.5sec;  | 2.Peak Temp.:245 5 , Duration:5 0.5sec. |
| 3 |     |     | 2  | 10 /sec. | 3. Cooling Speed: 2~10 /sec.            |

260 ±5

10 ±1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
TOLL-8L-Clip	2,000	1	2,000	6	12,000	13"x24	360x360x50	380x335x366

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