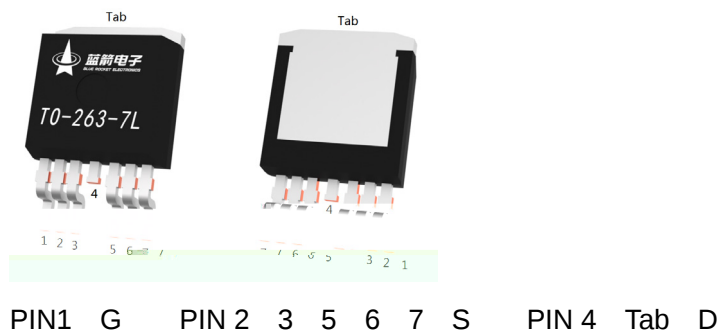
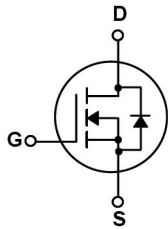


Rev.A Jul.-2025

TO-263-7L N
 N-CHANNEL MOSFET in a TO-263-7L Plastic Package.

$V_{DS}=100V$ $I_D=300A$
 $R_{DS(on)}@10V$ 1.3m (Type. 1.1m)
 $R_{DS(on)}@6V$ 1.9m (Type. 1.5m)
 HF Product.

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



See Marking Instructions.

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	100	V
Drain Current (DC) ***		$I_D(T_C=25^{\circ}C)$	300	A
		$I_D(T_C=100^{\circ}C)$	150	A
Pulsed Drain Current*, **, ***		I_{DM}	1200	A
Gate-Source Voltage		V_{GS}	± 20	V
Continuous-Source Current		$I_S(T_C=25^{\circ}C)$	300	A
Single Pulsed Avalanche Energy $L=1.0mH^*$		E_{AS}	1250	mJ
Total Power Dissipation		$P_D(T_C=25^{\circ}C)$	500	W
Junction and Storage Temperature Range		T_J, T_{STG}	-55 to 175	
Thermal Resistance-Junction to Ambient*	Steady-State	$R_{\theta JA}$	30	/W
Thermal Resistance-Junction to Case*	Steady-State	$R_{\theta JC}$	0.3	

Notes:

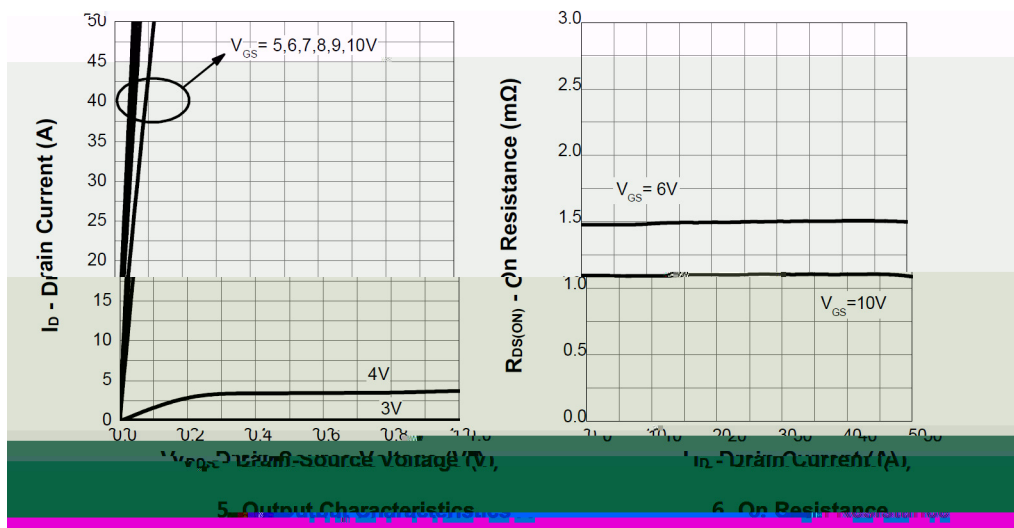
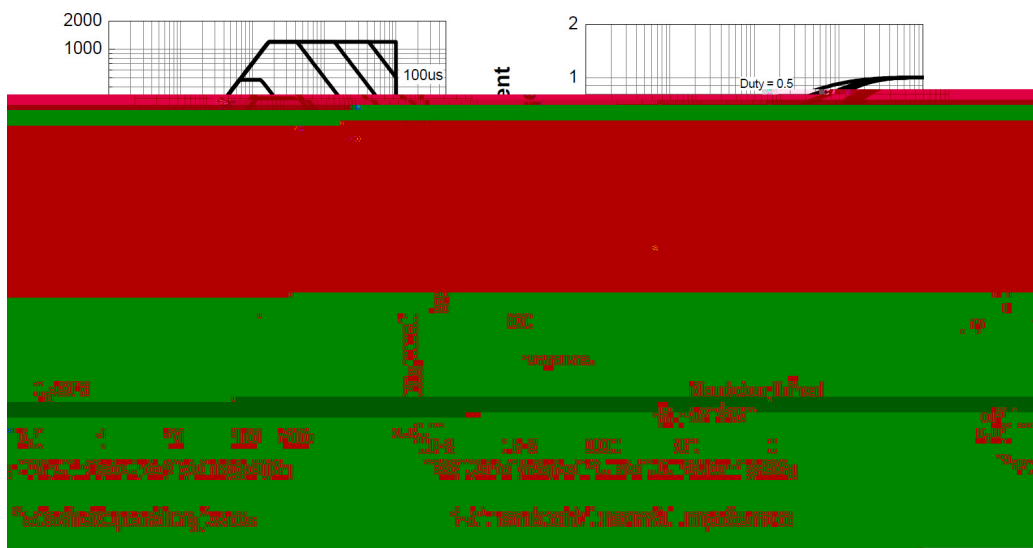
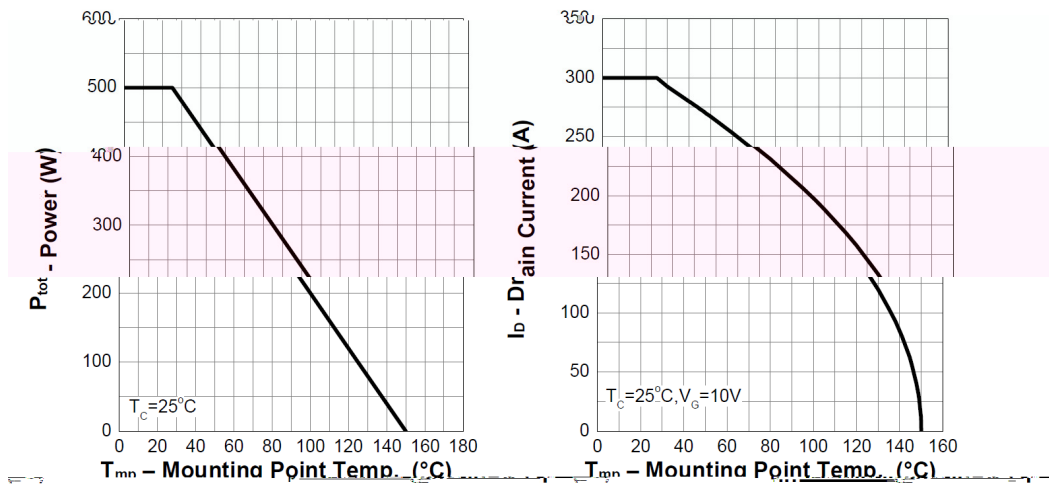
 * Surface Mounted on 1 in² pad area, $t \leq 10$ sec

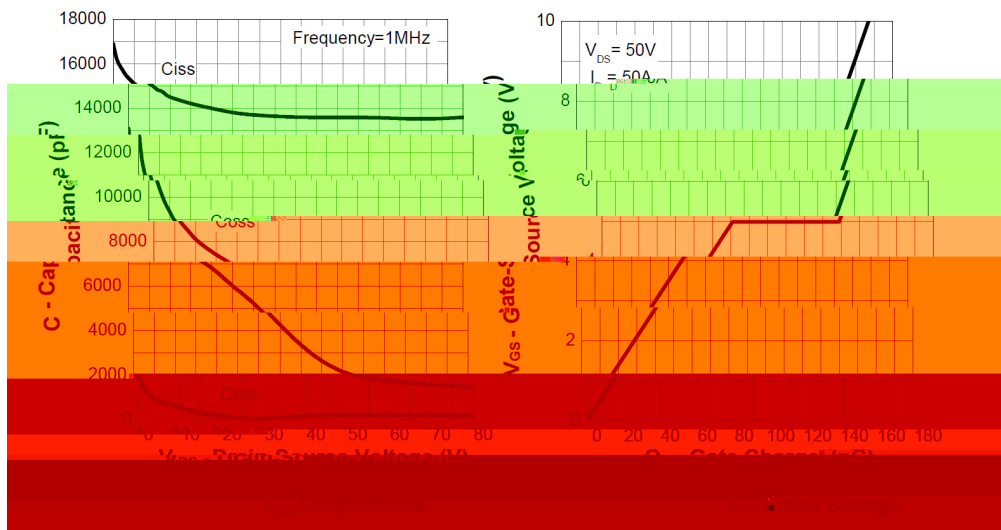
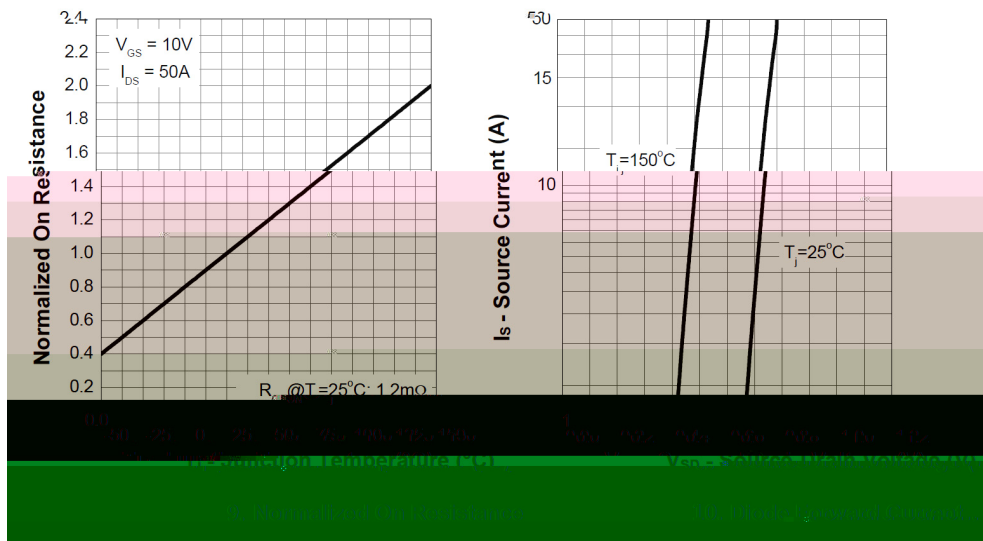
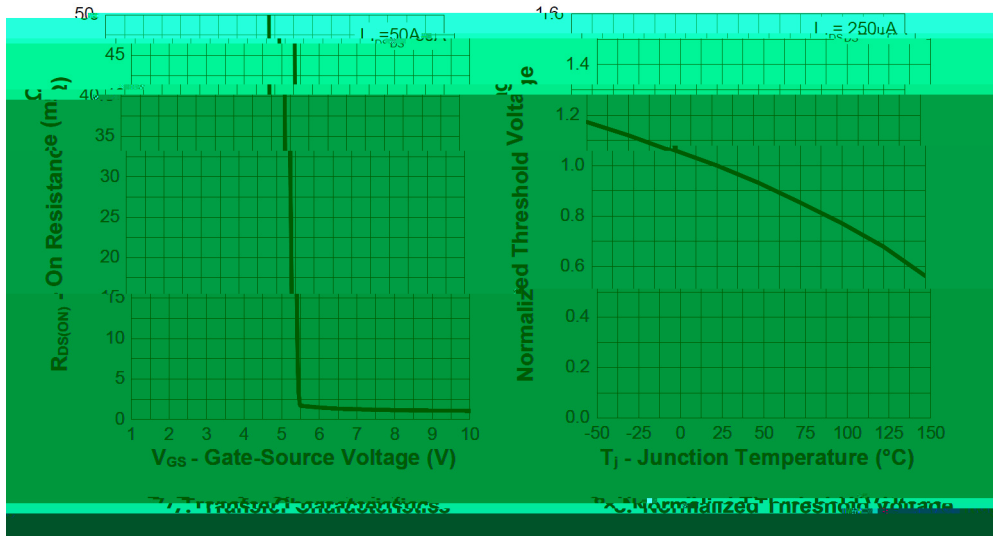
 ** Pulse width 300 μ s, duty cycle $\leq 2\%$

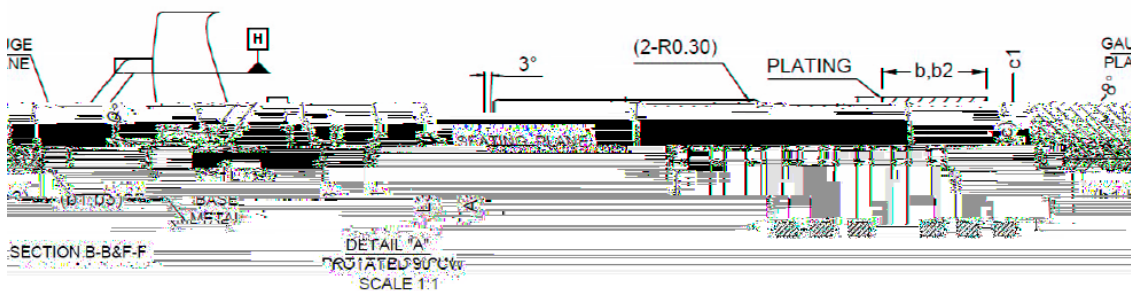
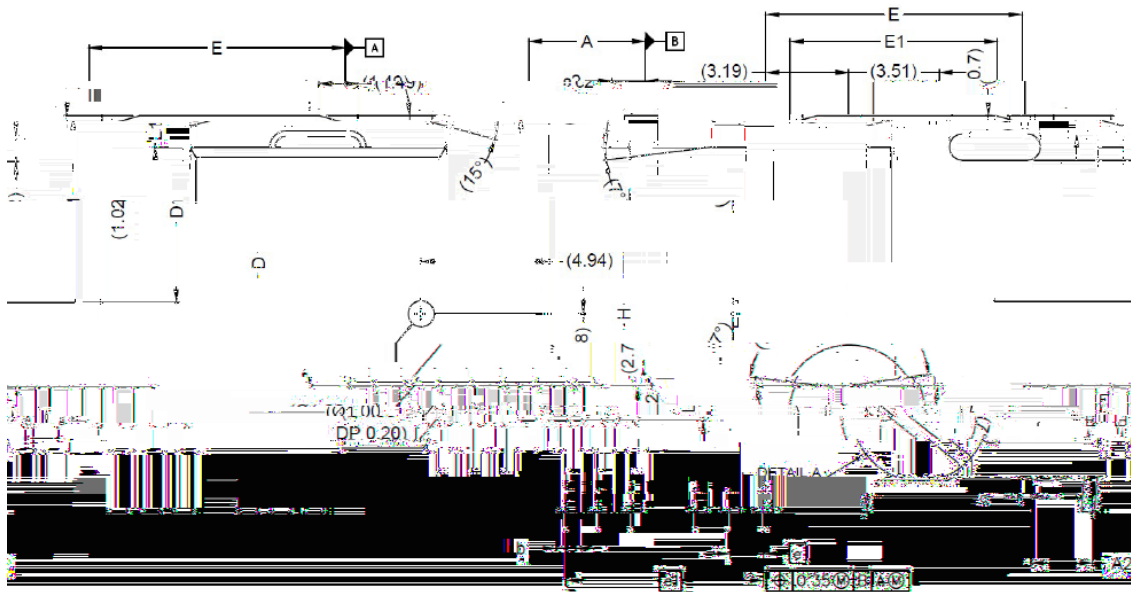
*** Limited by bonding wire

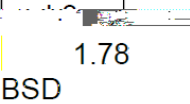
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250$ A	100			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=80V$ $V_{GS}=0V$			1	A
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250$ A	2		4	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=50A$		1.1	1.3	m
		$V_{GS}=6V$ $I_D=25A$		1.5	1.9	
Forward On Voltage	V_{SD}	$V_{GS}=0V$ $I_S=50A$			1.3	V
Reverse Recovery Time	t_{rr}	$I_{DS} = 50$ A, $V_{GS} = 0$ V $dI_{SD}/dt = 100$ A/ s		137		nS
Reverse Recovery Charge	Q_{rr}			347		nC
Input Capacitance	C_{iss}	$V_{DS}=50V$ $V_{GS}=0V$ $f=1MHz$		11876		pF
Output Capacitance	C_{oss}			2041		
Reverse Transfer Capacitance	C_{rss}			106		

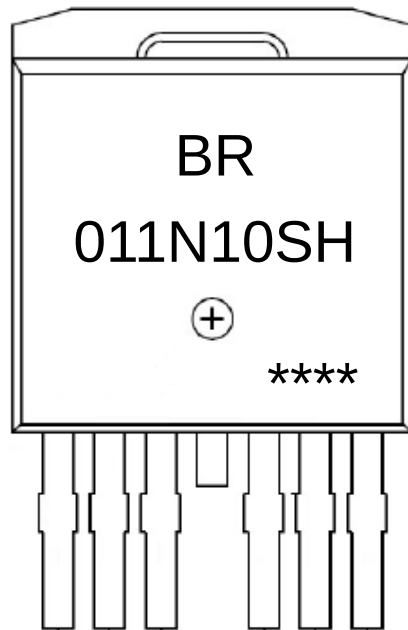
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	$Q_g(10V)$	$V_{GS}=10V$ $V_{DS}=50V$ $I_D=50A$		244		nC
Gate Source Charge	Q_{gs}			46		
Gate Drain Charge	Q_{gd}			67		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=50V$ $R_L=2.5$ $R_G=4.5$ $I_{DS}=50A$		29		nS
Turn-On Rise Time	t_r			121		
Turn-Off Delay Time	$t_{d(off)}$			198		
Turn-Off Fall Time	t_f			175		







Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters		
	MIN.	MAX.		MIN.	MAX.	
A	4.30	4.70	D1	6.86	7.42	
A1	-	0.25	E	9.68	10.08	
A2	2.20	2.60	E1	7.70	8.30	
b	0.65	0.85	e	1.27 BSC		
b1	0.65	0.80	e1	7.62 BSC		
b2	0.80	1.00	L	1.78	2.79	
 BSD	1.78	 c	0.45	0.60	L2	-
		c1	0.45	0.55	L3	0.25
	15.88	c2	1.25	1.40	H	14.61
		D	9.00	9.40		



BR

011N10SH

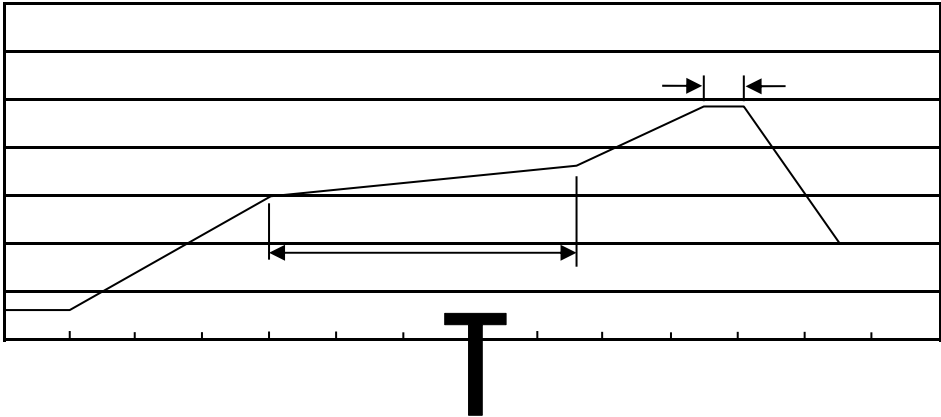
Note:

BR: Company Code

011N10SH: Product Type Code

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

Temperature Profile for IR Reflow Soldering(Pb-Free)



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 ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
TO-263-7L	800	1	800	6	4,800	13" ×24	360×360×50	380×335×366

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