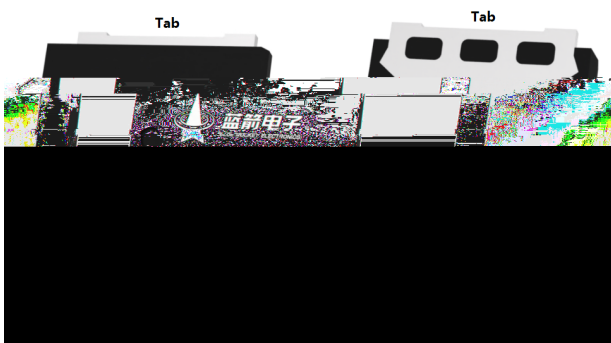
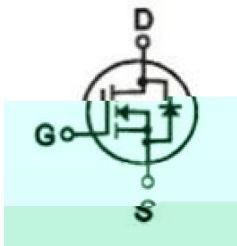


LFPAK5×6 N
 N-Channel MOSFET in a LFPAK5×6 Plastic Package.

$V_{DS} (V) = 80V$ $I_D = 300A$
 $R_{DS(ON)}@10V \leq 1.5m\Omega$ (Typ. 1.3mΩ)
 $R_{DS(ON)}@6V \leq 2.2m\Omega$ (Typ. 1.9mΩ)
 HF Product.

LCDM

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



PIN1 2 3 S PIN4 G Tab D

See Marking Instructions.

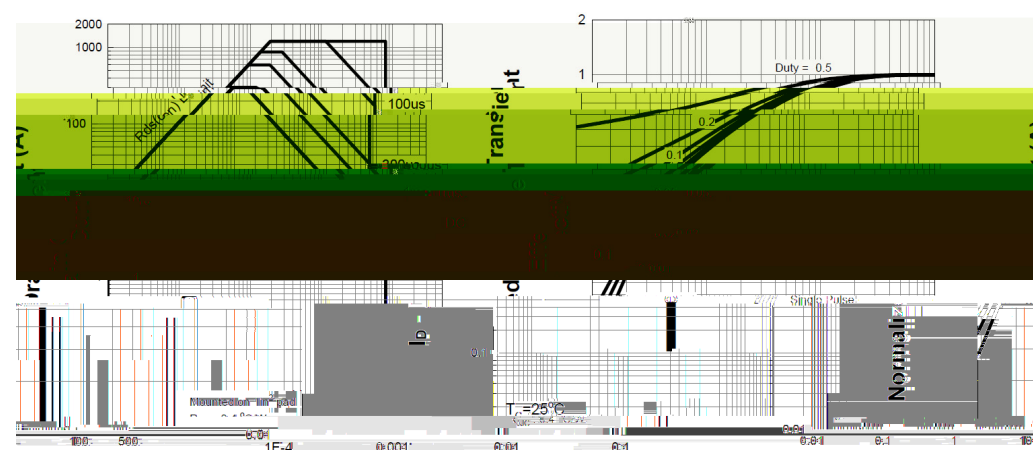
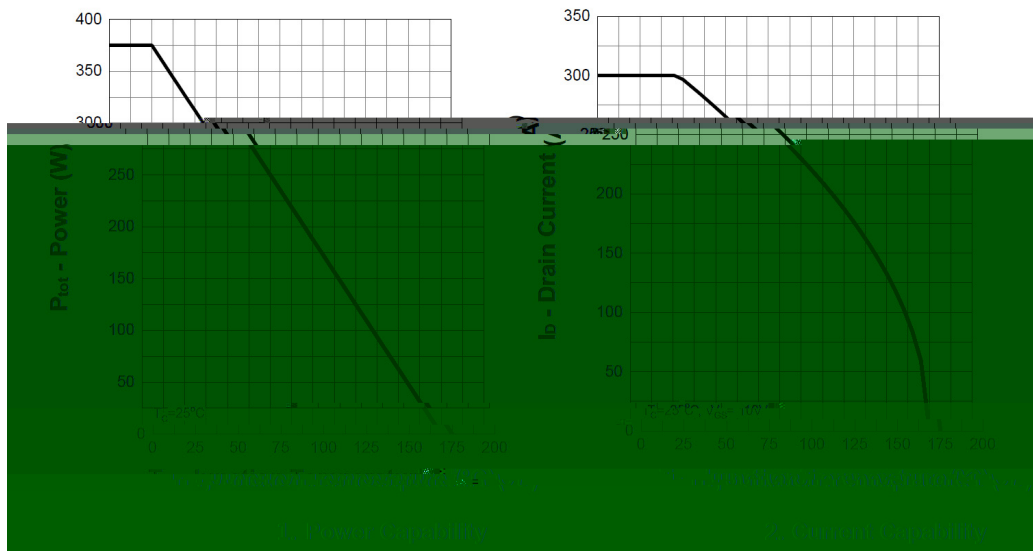
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	80	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	300	A
	$I_D(T_C=100^\circ\text{C})$	229	A
Pulsed Drain Current	I_{DM}	1200	A
Gate-Source Voltage	V_{GS}	± 20	V
Single Pulsed Avalanche Energy $L=1.0\text{mH}$	E_{AS}	950	mJ
Continuous-Source Current	$I_S(T_C=25^\circ\text{C})$	300	A
Total Power Dissipation	$P_D(T_C=25^\circ\text{C})$	375	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 175	$^\circ\text{C}$
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	57	/W
Thermal Resistance-Junction to Case	$R_{\theta JC}$	0.4	

Notes:

- ① Surface Mounted on 1 in² pad area, $t \leq 10$ sec
- ② Pulse width $\leq 300 \mu\text{s}$, duty cycle $\leq 2\%$
- ③ Limited by bonding wire

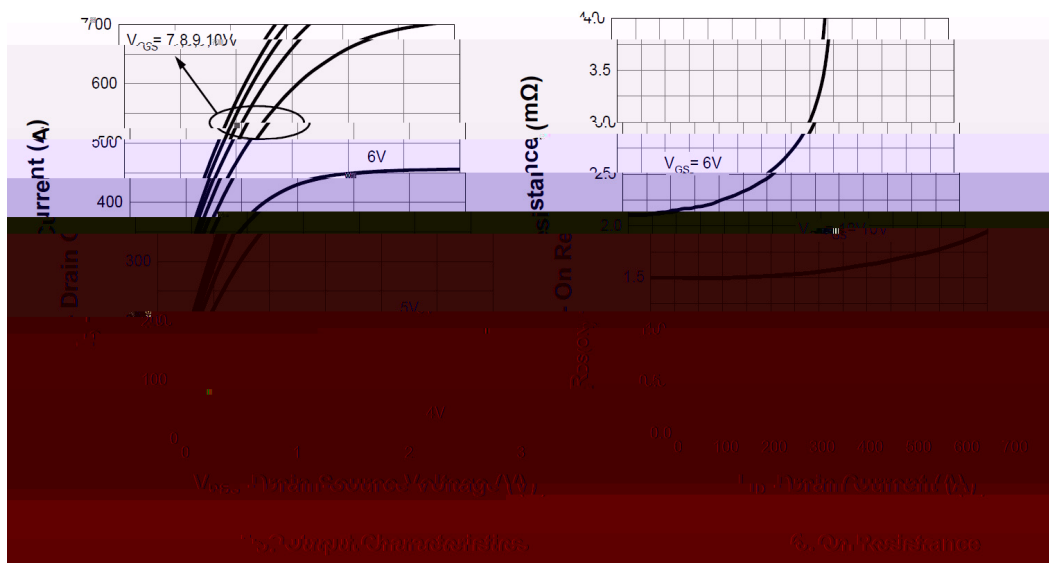
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	80			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=64V$ $V_{GS}=0V$			1	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	2		4	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=50A$		1.3	1.5	m Ω
	$R_{DS(on)}$	$V_{GS}=6V$ $I_D=30A$		1.9	2.2	
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=50A$			1.3	V
Reverse Recovery Time	t_{rr}	$I_{DS} = 50A, V_{GS} = 0V$ $dI_{SD}/dt = 100 A/\mu s$		54		nS
Reverse Recovery Charge	Q_{rr}			78		nC
Input Capacitance	C_{iss}	$V_{DS}=40V$ $V_{GS}=0V$ $f=1.0\text{MHz}$		7971		pF
Output Capacitance	C_{oss}			1112		
Reverse Transfer Capacitance	C_{rss}			53		

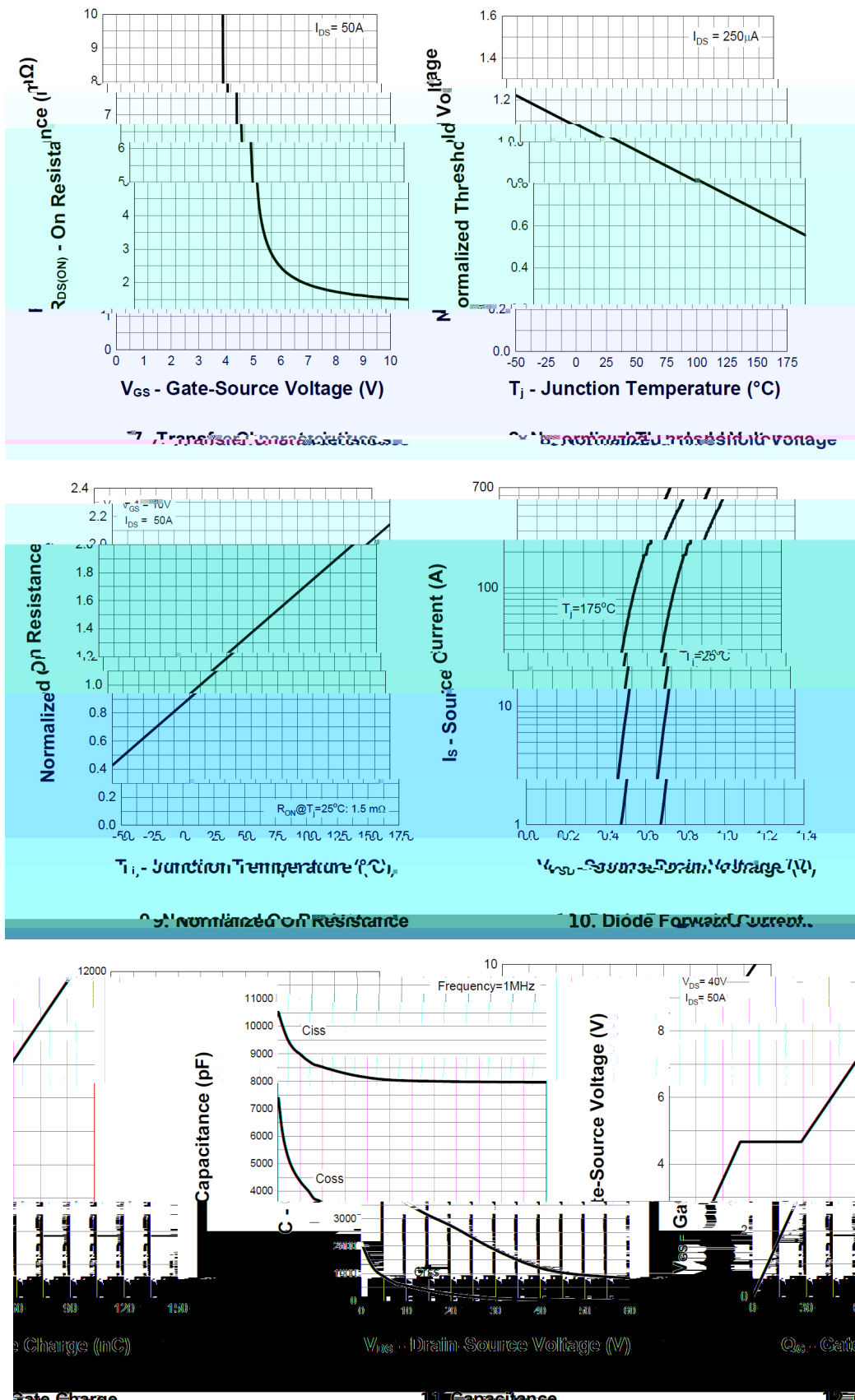
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=10V, \quad V_{DS}=40V,$ $I_D=50A$		141		nC
Gate Source Charge	Q_{gs}			40		
Gate Drain Charge	Q_{gd}			34		
Turn-On Delay Time	$t_{d(on)}$	$V_{GEN}=10V \quad V_{DS}=40V$ $R_L=0.8\Omega \quad R_G=3.9\Omega$ $I_{DS}=50A$		24		ns
Turn-On Rise Time	t_r			57		
Turn-Off Delay Time	$t_{d(off)}$			94		
Turn-Off Fall Time	t_f			56		

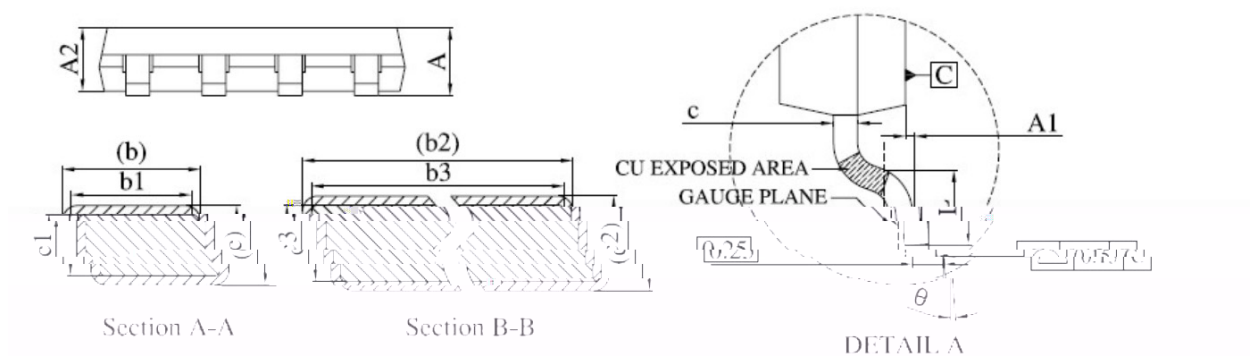
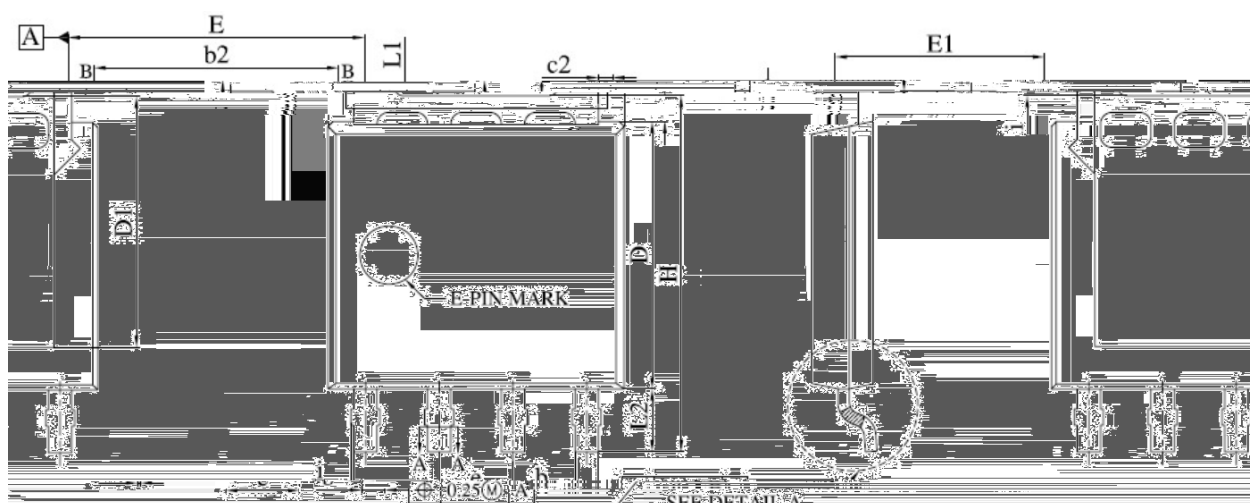


1. Voltage (V) 2. Square Wave Pulse Duration (sec) 3. V_{DS} - Drain-Source Voltage (V)

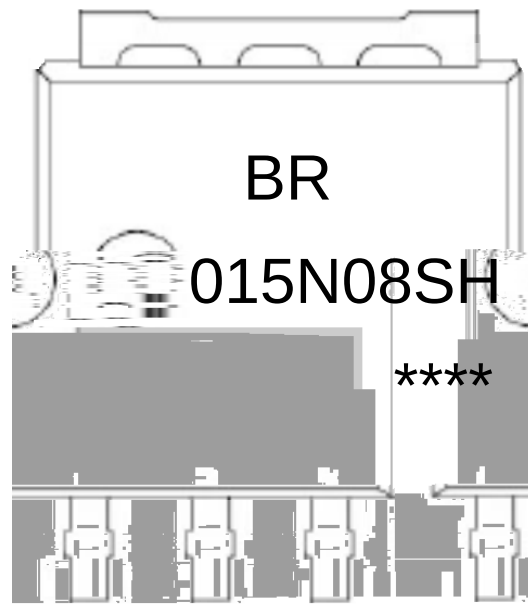
4. Transient Thermal Impedance 5. Safe Operation Area







Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	MIN.	MAX.		MIN.	MAX.
A	1.00	1.30	E	4.95	5.30
A1	0.00	0.15	E1	3.50	3.70
A2	0.98	1.12	e	1.27 BSC.	
b	0.35	0.50	H	5.95	6.35
b1	0.32	0.46	i	-	0.10
b2	4.02	4.41	L	0.40	0.50
b3	4.00	4.37	L1	0.27	0.30
c	0.19	0.25	L2	0.80	0.90
c1	0.17	0.23	theta	0°	8°
c2	0.24	0.30			
c3	0.22	0.28			
D	4.45	4.70			
D1	-	4.45			



BR

015N08SH

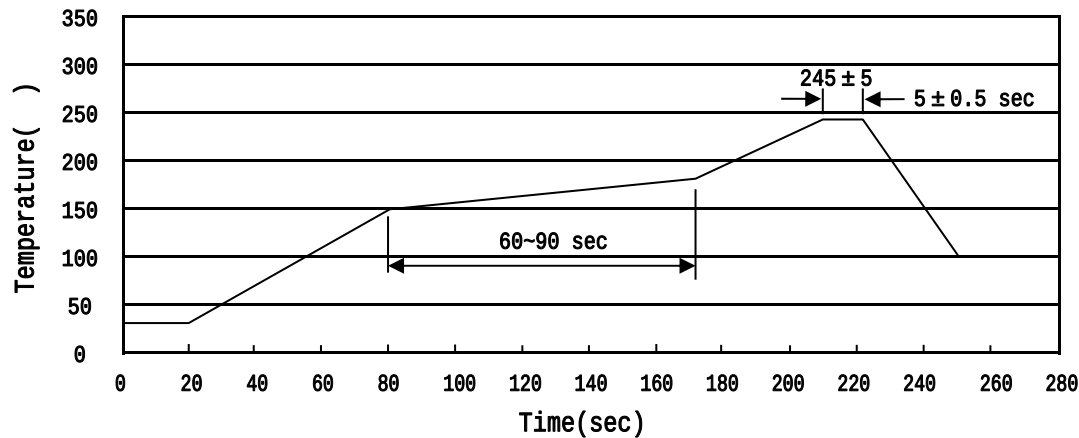
Note

BR: Company Code

015N08SH: 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
LFPAK5×6	3,000	2	6,000	5	30,000	13"×12	356×335×50	385×285×358

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
LFPAK5×6	5,000	2	10,000	5	50,000	13"×12	356×335×50	385×285×358

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