

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	40	V
Drain Current ^{①③}	$I_D(T_C=25^{\circ}C)$	300	A
	$I_D(T_C=100^{\circ}C)$	281	A
Pulsed Drain Current ^{①②}	I_{DM}	1200	A
Gate-Source Voltage	V_{GS}	± 20	V
Single Pulsed Avalanche Energy $L=1.0mH$ ^①	E_{AS}	800	mJ
Continuous-Source Current	I_S	300	A
Total Power Dissipation ^①	$P_D(T_C=25^{\circ}C)$	250	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 175	
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	60	$^{\circ}C/W$
Thermal Resistance-Junction to Case ^①	$R_{\theta JC}$	0.6	

Notes:

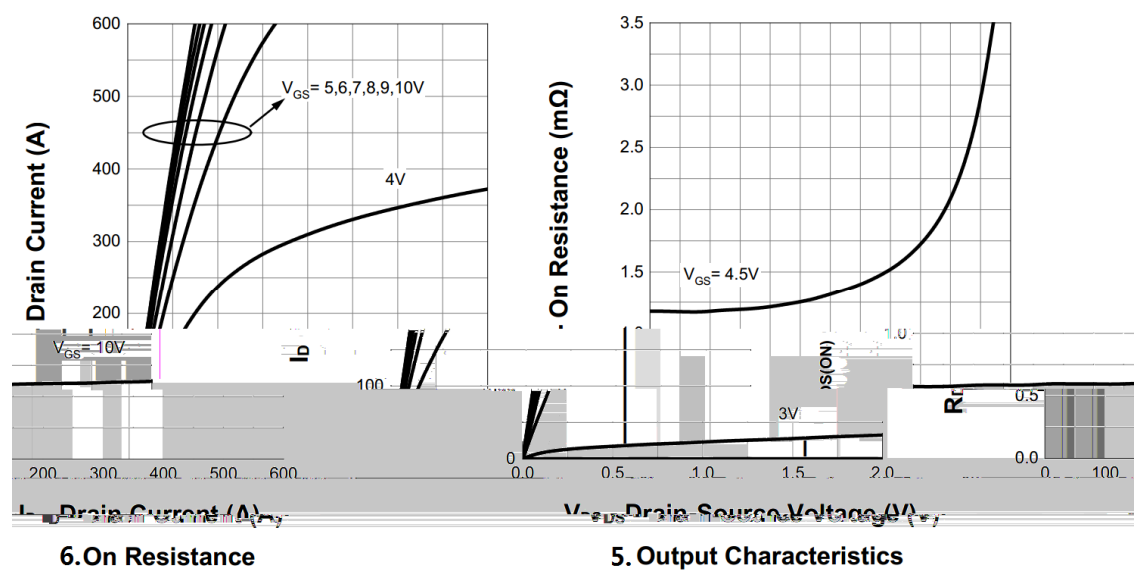
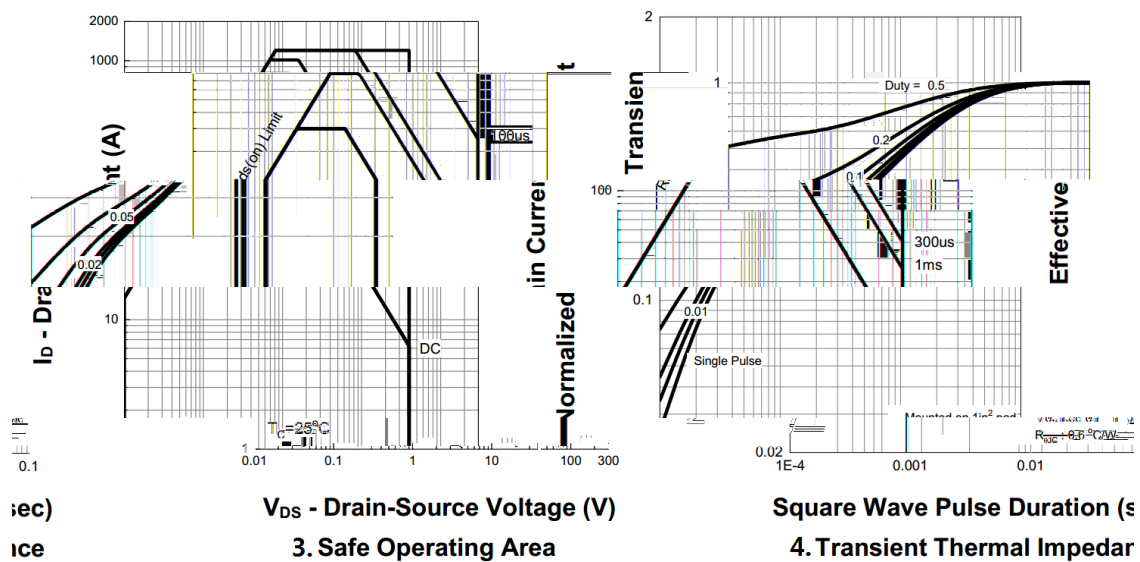
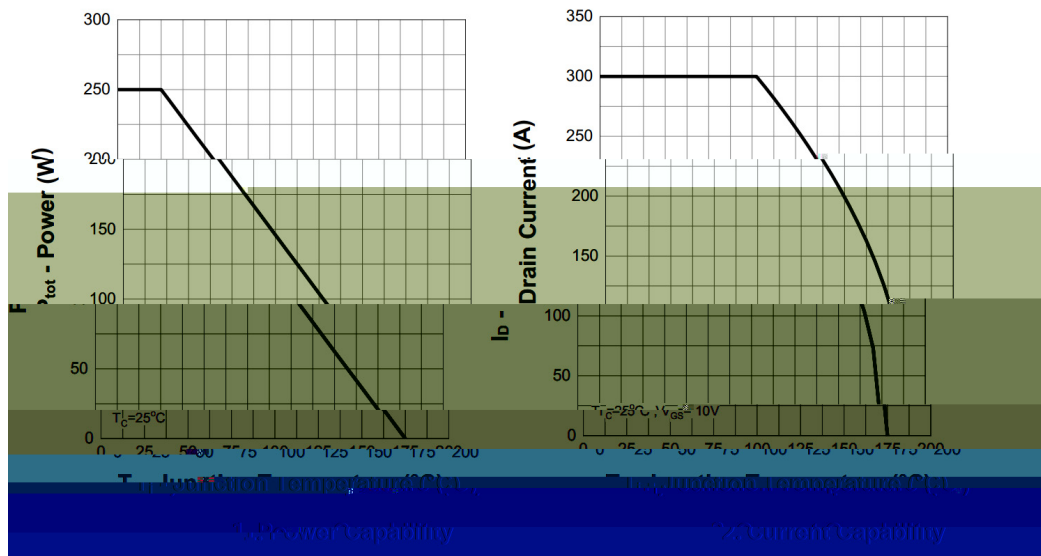
 Surface Mounted on 1 in² pad area, $t = 10$ sec

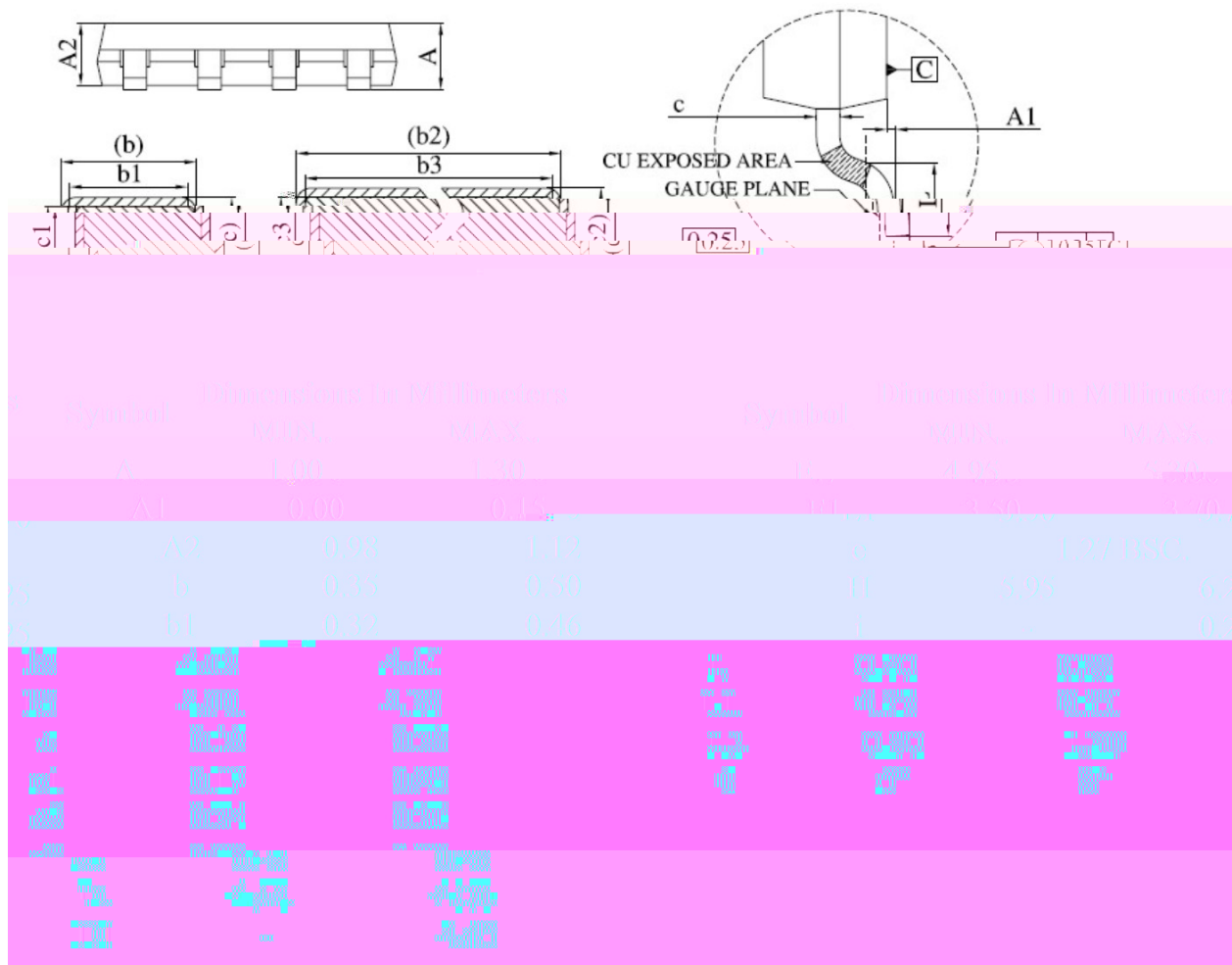
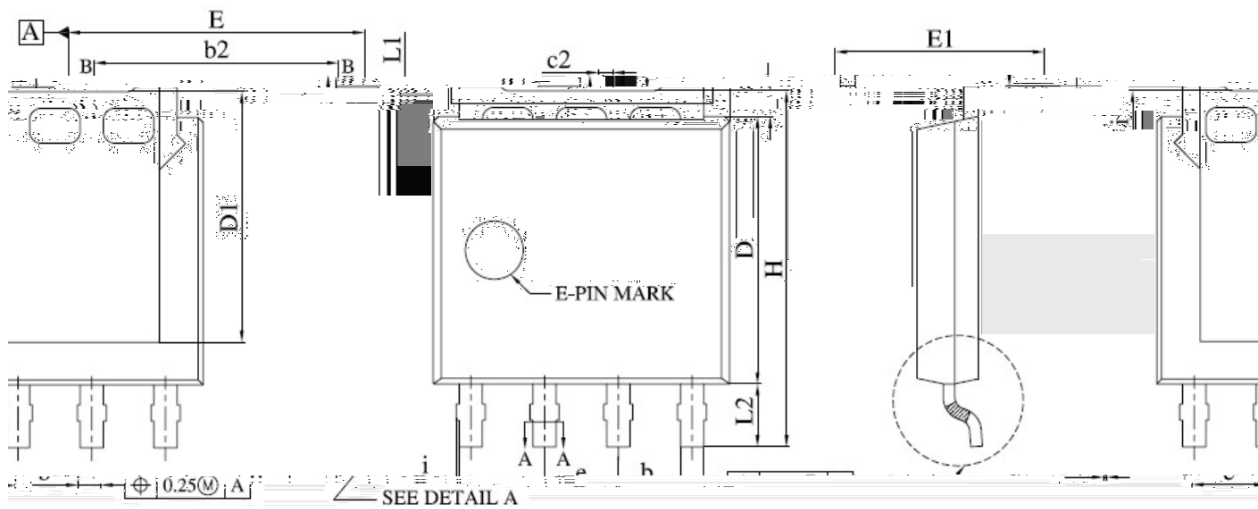
 Pulse width 300 μ s, duty cycle 2 %

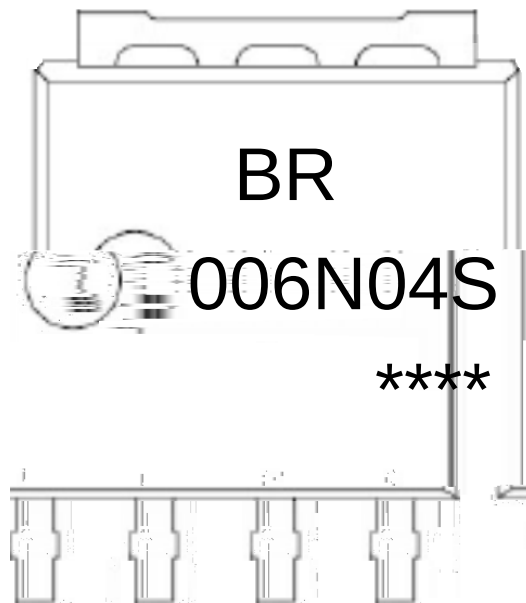
Limited by bonding wire

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250$ A	40			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=32V$ $V_{GS}=0V$			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	1		2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=30A$		0.57	0.68	m
	$R_{DS(on)}$	$V_{GS}=4.5V$ $I_D=20A$		1.07	1.39	m
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=30A$			1.3	V
Reverse Recovery Time	t_{rr}	$I_{DS} = 30$ A, $V_{GS} = 0$ V $dI_{SD}/dt = 100$ A/ μ s		71		nS
Reverse Recovery Charge	Q_{rr}			77		nC
Input Capacitance	C_{iss}	$V_{DS}=20V$ $V_{GS}=0V$ $f=1.0MHz$		5733		pF
Output Capacitance	C_{oss}			2609		
Reverse Transfer Capacitance	C_{rss}			154		

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=10V, V_{DS}=20V, I_D=30A$		111		nC
Gate Source Charge	Q_{gs}			21		
Gate Drain Charge	Q_{gd}			27		
Turn-On Delay Time	$t_{d(on)}$	$V_{GEN}=10V, V_{DS}=20V, R_L=0.66, R_G=3.9, I_{DS}=30A$		18		ns







BR

006N04S

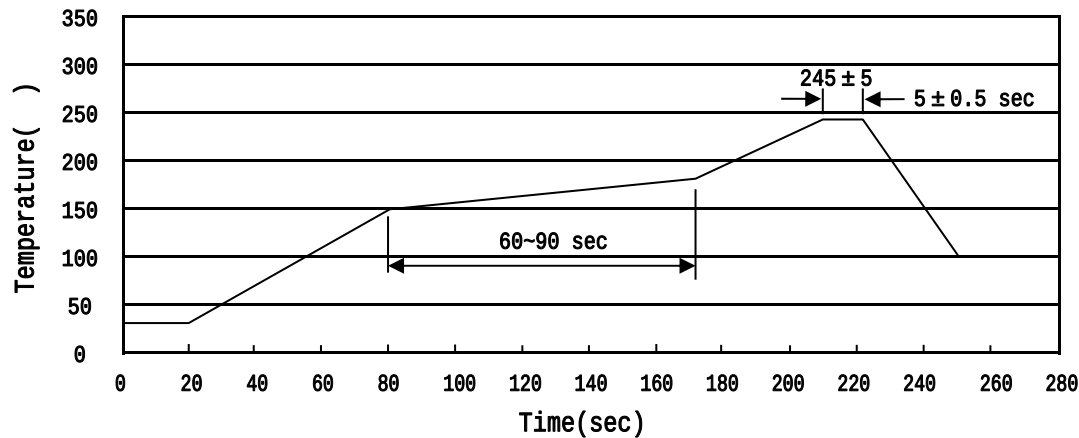
Note

BR: Company Code

006N04S: 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 ;>β fH					Dimension ;>β p . (unit ~ mm³)		
	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 ;>β fH					Dimension ;>β p . (unit ~ mm³)		
	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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