

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, $t \leq 10$ secPulse width $\leq 300 \mu s$, duty cycle $\leq 2\%$

Limited by bonding wire

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	40			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=32V$ $V_{GS}=0V$			1	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ V				

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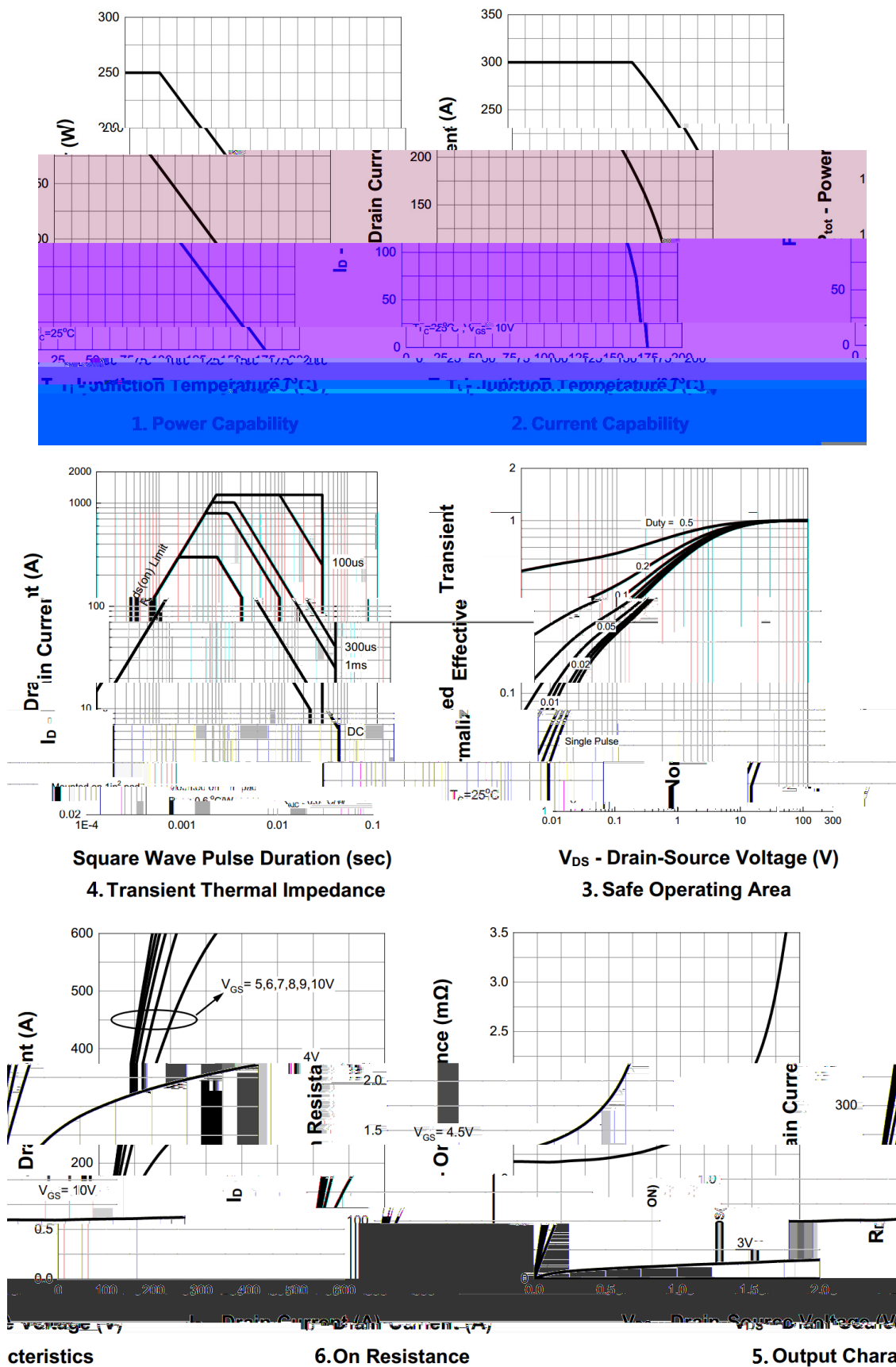
Rev.C Jan.-2026



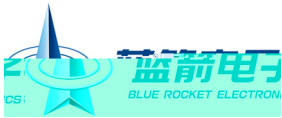
DATA SHEET

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	$t_{d(on)}$	$V_{GEN}=10V, V_{DS}=20V, R_L=0.66\Omega, R_G=3.9\Omega, I_{DS}=30A$		18		ns

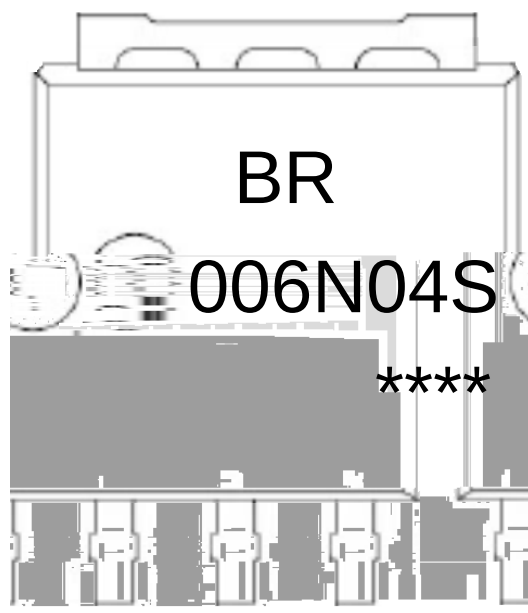
/ Electrical Characteristic Curve



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/ Marking Instructions



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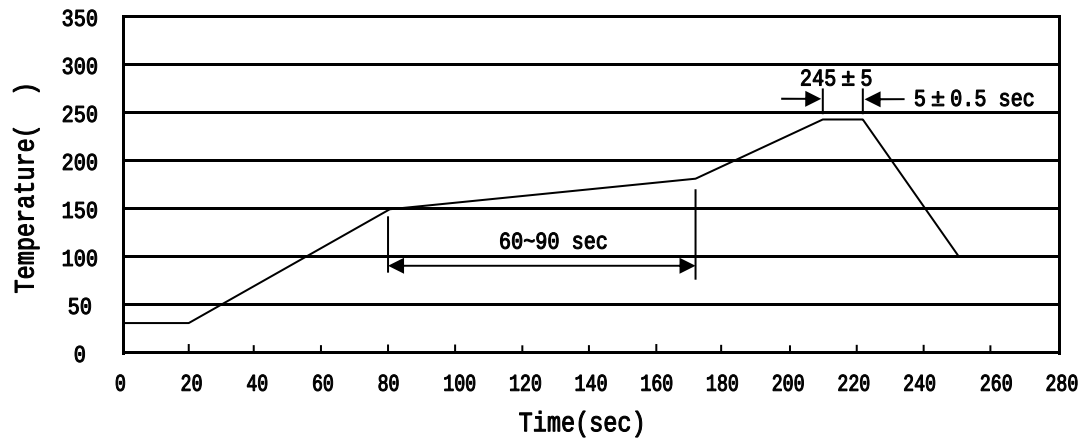
Note

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. |

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units ;>β fH					Dimension ;>β p . (unit ~ mm ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
LFPK5×6	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 ~ mm ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
LFPK5×6	5,000	2	10,000	5	50,000	13"×12	356×335×50	385×285×358

/ Notices

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