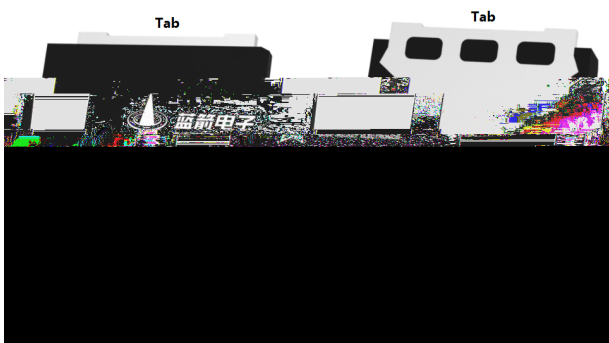
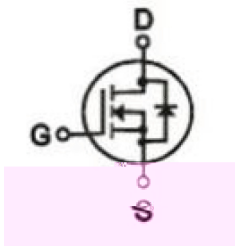


Rev.C Jan.-2026

LFP5K56 N
N-Channel MOSFET in a LFP5K56 Plastic Package.

$V_{DS} (V) = 30V$ $I_D = 300A$
 $R_{DS(ON)}@10V \leq 0.55m$ (Typ. $0.48m$)
 $R_{DS(ON)}@4.5V \leq 0.95m$ (Typ. $0.82m$)
 HF Product.

DC-DC
 Motor drivers, DC - DC Converter.



PIN1 2 3 S PIN4 G Tab D

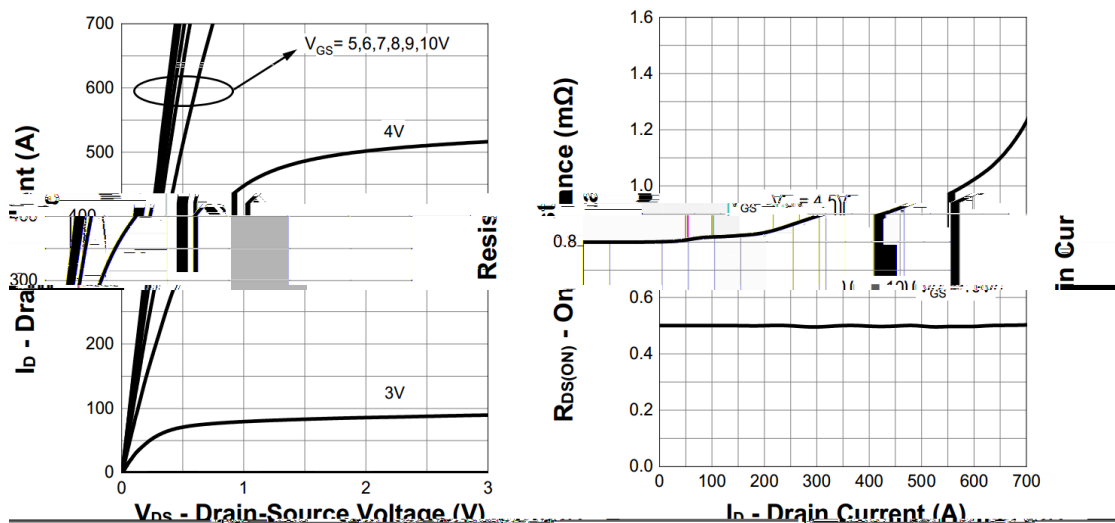
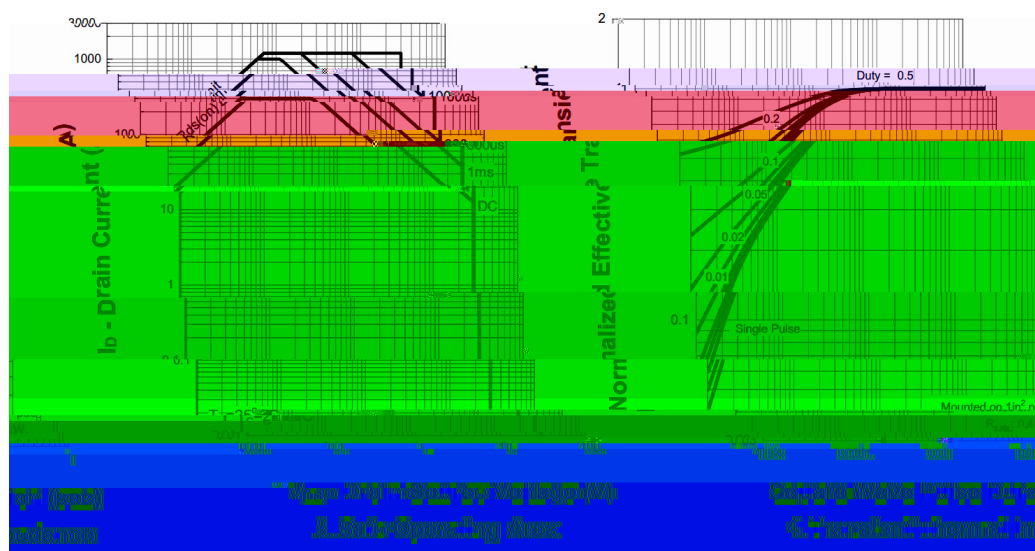
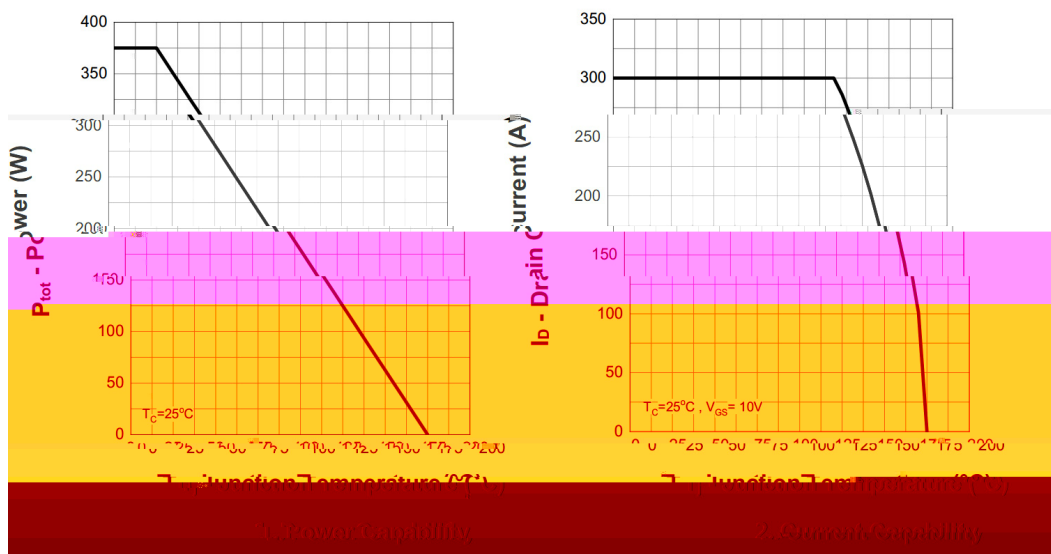
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	300	A
	$I_D(T_C=100^\circ\text{C})$	300	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}	1624	mJ
Continuous-Source Current	I_S	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	

Thermal Resist16 85(mal Res)-8.7(i)-(STG)33 Tmd(,T)Tj78-5(ange)-40 T Ambie1.7403 Tm.0004 Tc0 Tw01370138

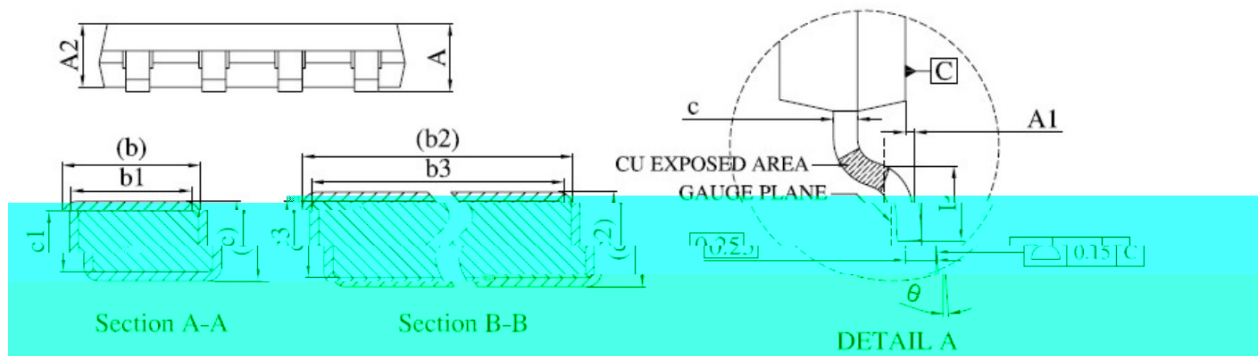
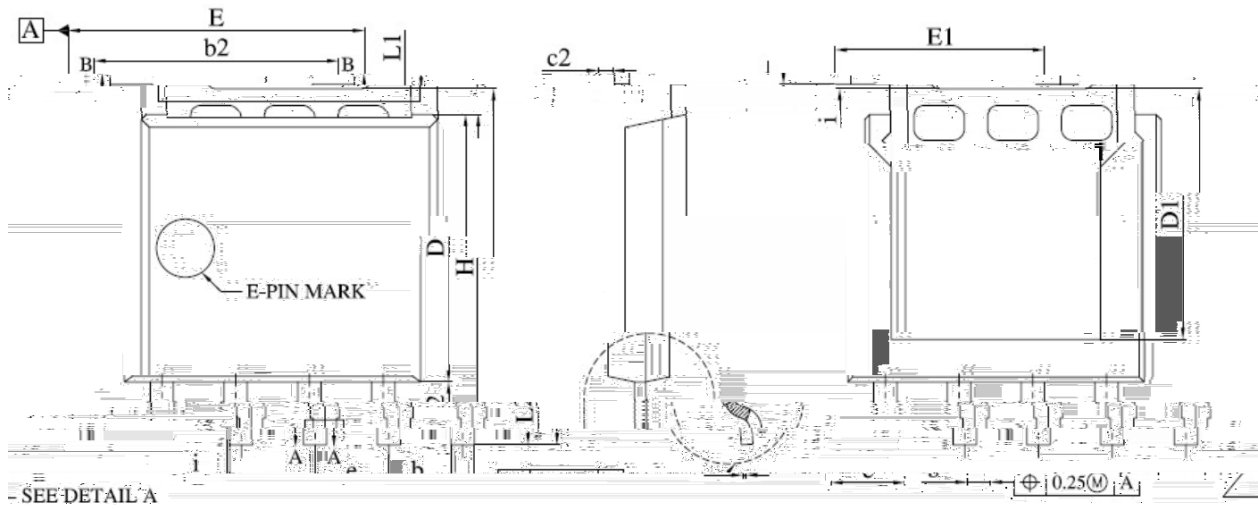


Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=10V, \quad V_{DS}=15V, \\ I_D=50A$		306		nC
Gate Source Charge	Q_{gs}			63		
Gate Drain Charge	Q_{gd}			44		
Turn-On Delay Time	$t_{d(on)}$	$V_{GEN}=10V \quad V_{DS}=15V \\ R_L=0.3 \quad R_G=3.9 \\ I_{DS}=50A$		23		ns
Turn-On Rise Time	t_r			151		
Turn-Off Delay Time	$t_{d(off)}$			249		
Turn-Off Fall Time	t_f			127		



5. Output Characteristics

6. On Resistance



Dimensions In Millimeters				Dimensions In Millimeters			
Symbol	MIN.	MAX.		Symbol	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	6.00	
b1	0.32	0.46		i	-	0.00	
b2	4.02	4.41		L	0.40	0.85	
b3	4.00	4.37		L1	0.27	0.57	
c	0.19	0.25		L2	0.80	1.30	
c1	0.17	0.23		θ	0°	8°	
c2	0.24	0.30					
c3	0.22	0.28					
D	4.45	4.70					
DI	-	4.45					



006N03S

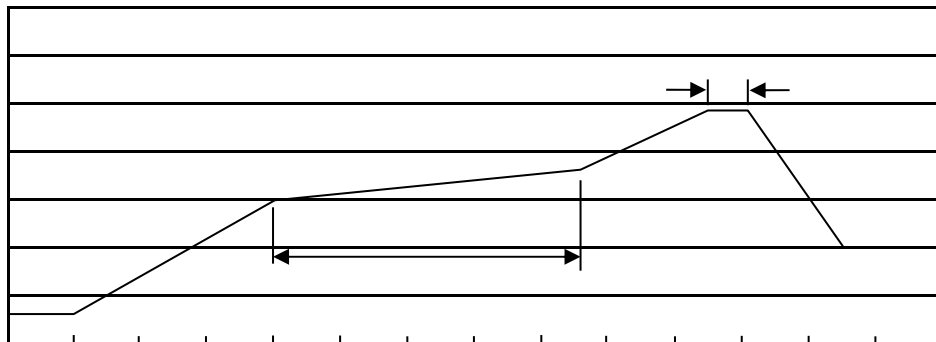
Note

BR: Company Code

006N03S: 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 包装数量					Dimension 包装尺寸 (unit: mm ³)		
LFPK5×6	3,000	2	6,000	5	30,000	13"×12	356×335×50	385×285×358

Package Type	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
LFPK5×6	5,000	2	10,000	5	50,000	13"×12	356×335×50	385×285×358

All information provided in this document is subject to legal disclaimers.