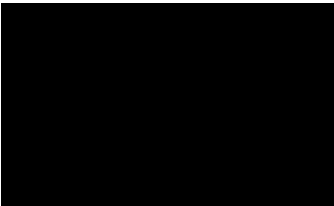
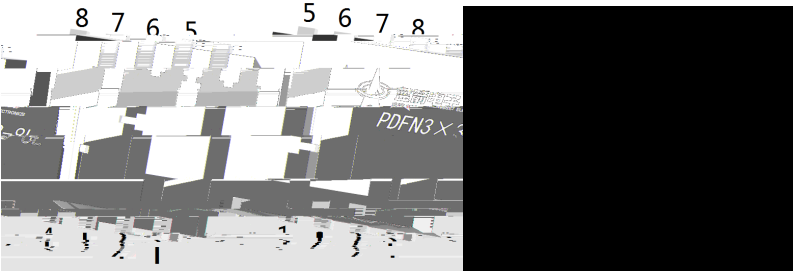


PDFN6×60;L
Complementary Enhancement MOSFET in a PDFN3×3-8L Plastic Package.

N0channel	P-channel
$V_{DS}(V)=30V \quad I_D=37A$	$V_{DS}(V)=-30V \quad I_D=-26A$
$R_{DS(ON)}@10V<8m\Omega$ (Typ.7.5mR)	$R_{DS(ON)}@-10V<13m\Omega$ (Typ.12mR)
$R_{DS(ON)}@4.5V<15m\Omega$ (Typ.11mR)	$R_{DS(ON)}@-4.5V<20m\Omega$ (Typ.17mR)
HF Product.	

د ق
Battery protection switch,Mobile device battery charging and discharging,Load switch.



/ Marking

CS080C03YA

A Sep.-2023



蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

Parameter	N Symbol	Rating		Unit
		N-channe	P-channell	
ain-Source Voltage	V_{DSS}	30	-30	V
te-Source Voltage	V_{GSS}	± 20		V
ntinuous Drain Current	$I_D(T_c=25^\circ C)$	37	-26	A
sed Drain Current	I_{DM}	82	-58	A
wer Dissipation	$P_D(T_c=25^\circ C)$	18	15	W

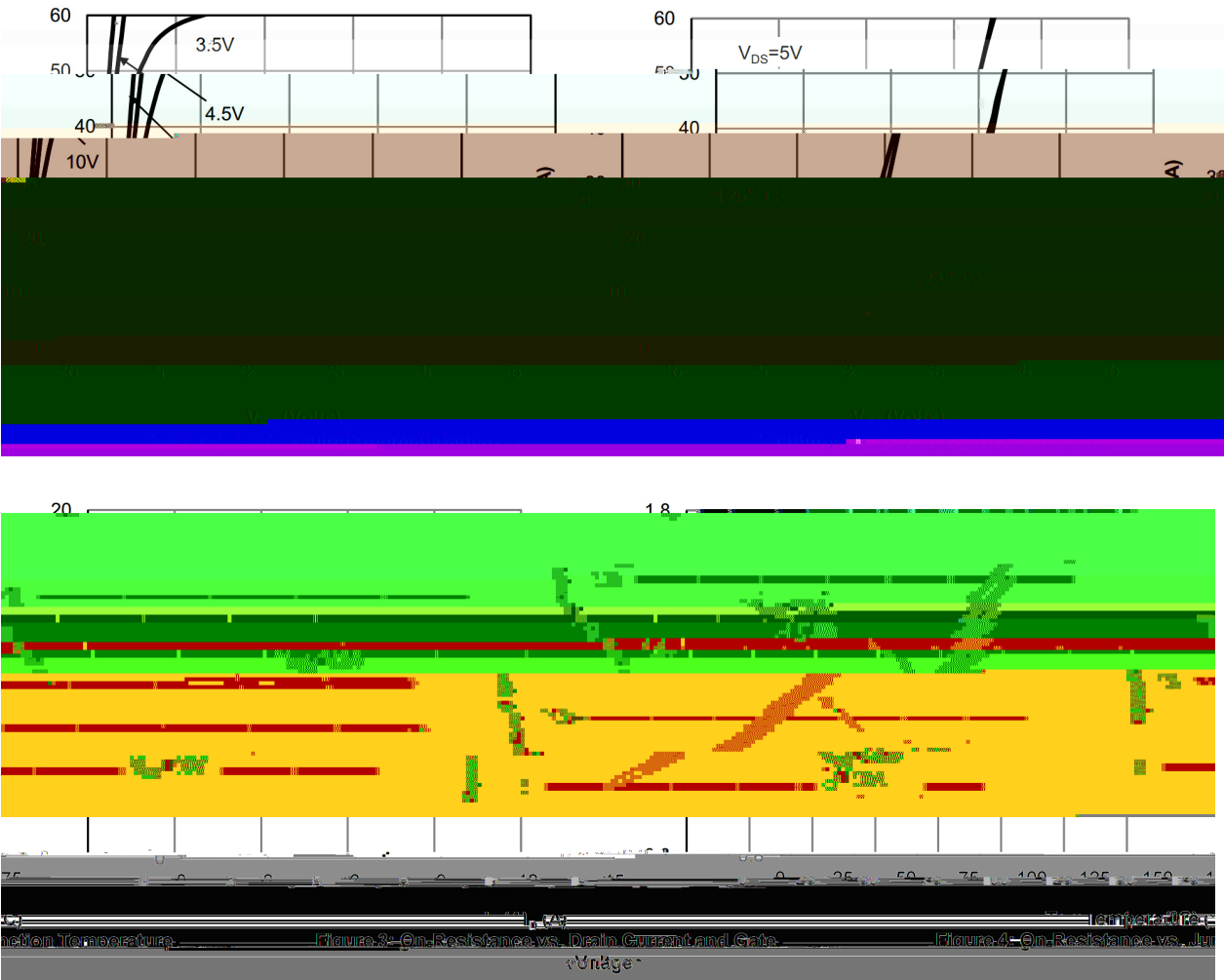
Junction and Storage
Temperature Range

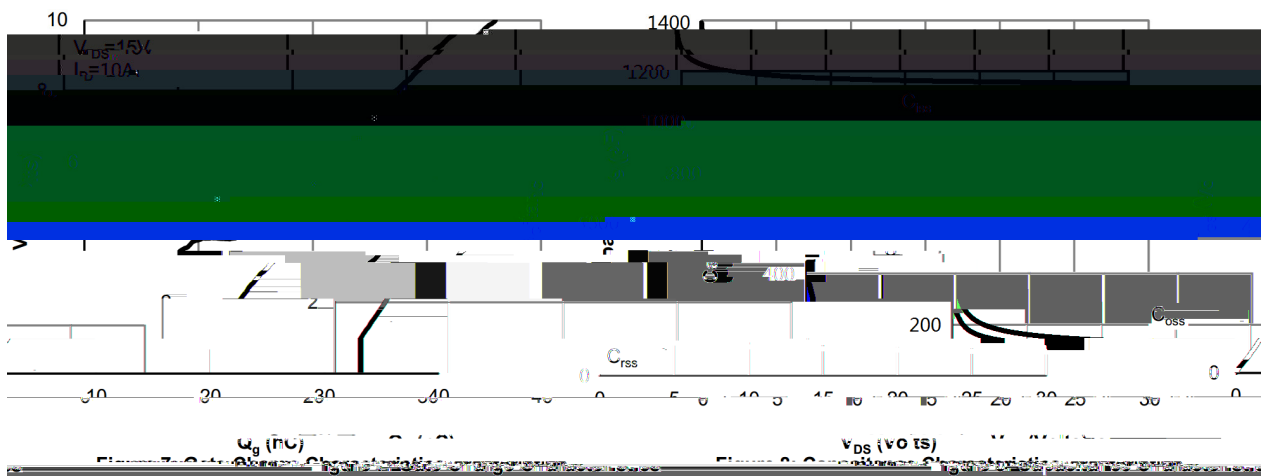
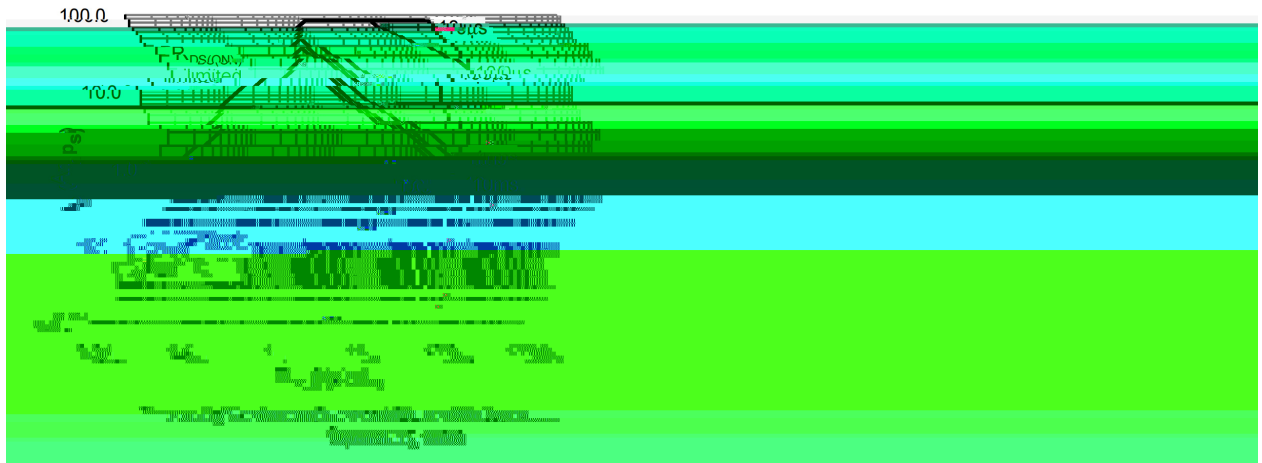
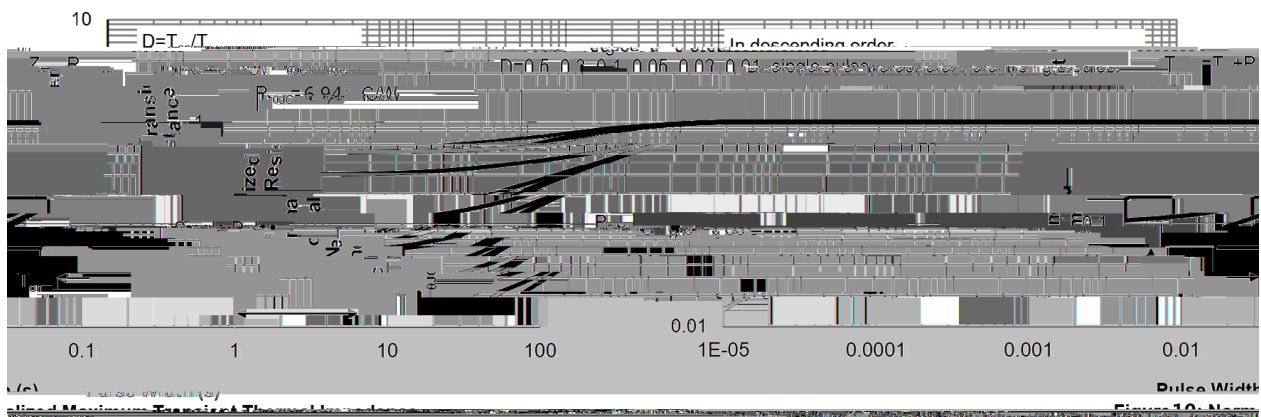
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N- /N-CHANNEL Electrical Characteristics(Ta=25)

Parameter	N Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	30	35.5		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=30V$ $V_{GS}=0V$			1.0	μA
Gate-Body leakage current	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	1.0	1.8	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=10A$		7.5	8	m Ω
		$V_{GS}=4.5V$ $I_D=10A$		11	15	m Ω
Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=1.0A$			1.4	V
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$		1170		pF
Output Capacitance	C_{oss}			110		pF
Reverse Transfer Capacitance	C_{rss}			100		pF
Gate resistance	R_g	$V_{DS}=0V$ $V_{GS}=0V$ $f=1.0MHz$		3.7		Ω
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10V$ $V_{DS}=15V$ $I_D=10A$		40		nC
Total Gate Charge	$Q_{g(4.5V)}$			22		nC
Gate-Source Charge	Q_{gs}			11		nC
Gate-Drain Charge	Q_{gd}			5		nC
Turn-On Delay Time	$t_{d(on)}$	$V_{DS}=15V$ $V_{GS}=10V$ $R_L=0.75\Omega$ $R_{GEN}=3\Omega$		11		ns
Turn-On Rise Time	t_r			14		ns
Turn-Off Delay Time	$t_{d(off)}$			38		ns
Turn-Off Fall Time	t_f			10		ns

N- / N-CHANNEL Electrical Characteristic Curve

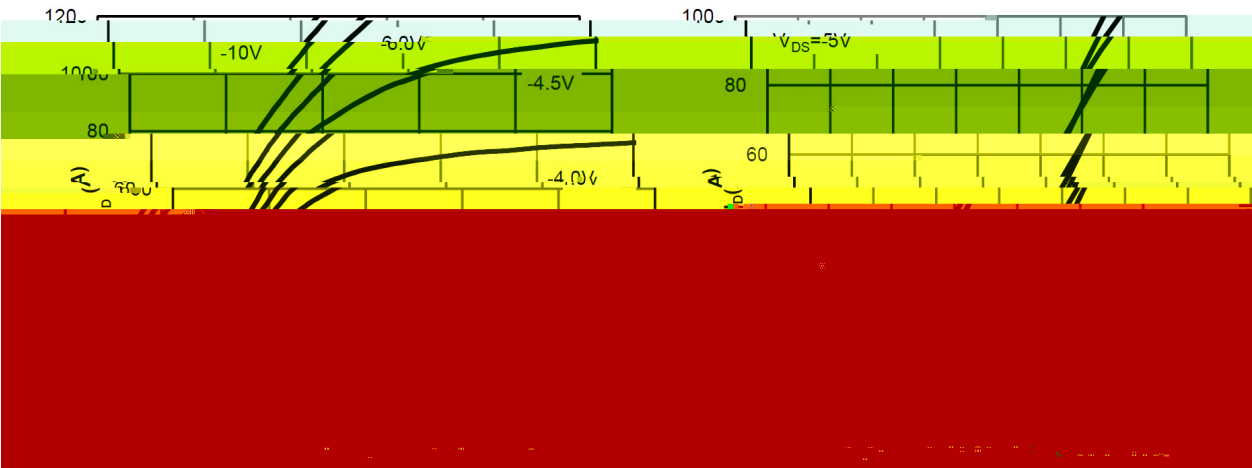


N- / N-CHANNEL Electrical Characteristic Curve


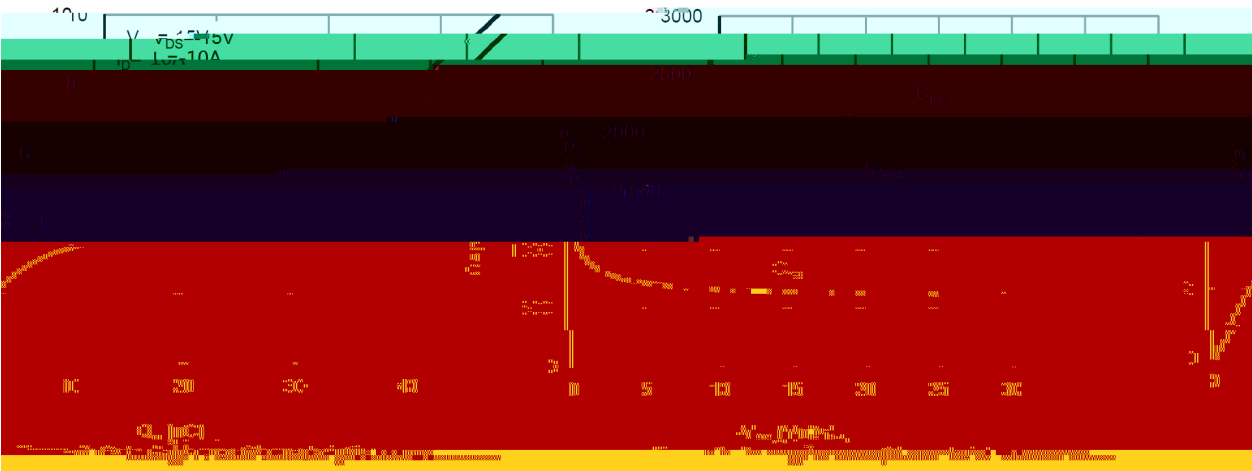
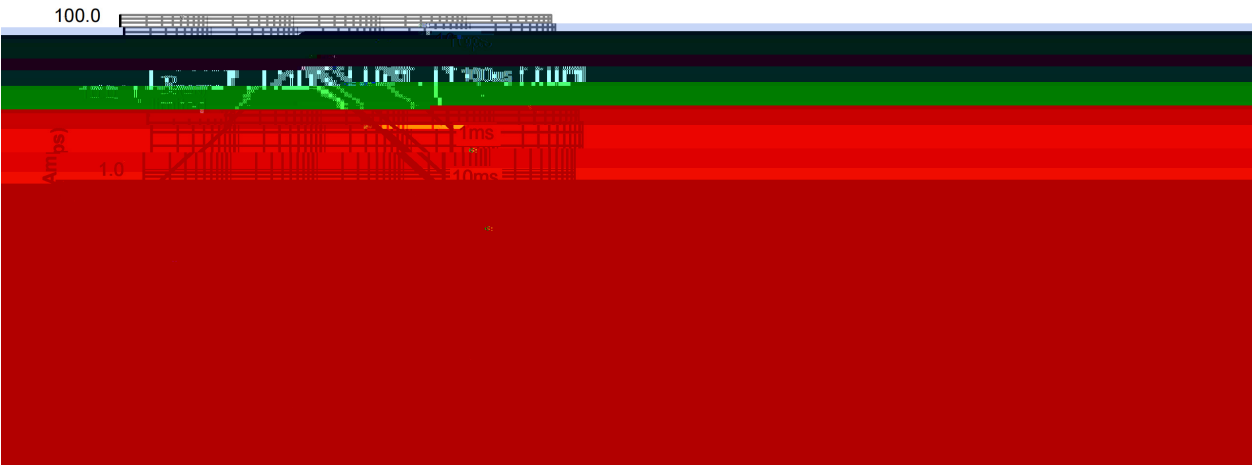
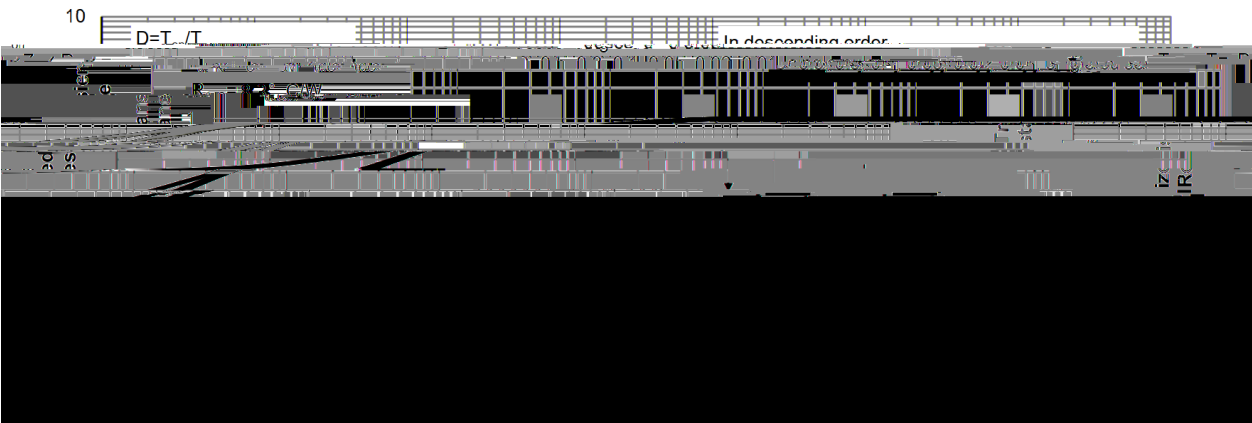
P- /P-CHANNEL Electrical Characteristics(Ta=25

Parameter	N Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V I _D =-250μA	-30			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-30 V _{GS} =0V			-1.0	μA
Gate-Body leakage current	I _{GSS}	V _{GS} =±20V V _{DS} =0V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} I _D =-250μA	-1.0	-1.5	-2.5	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =-10V I _D =-10A		12	13	mΩ
		V _{GS} =-4.5V I _D =-10A		17	20	mΩ
Diode Forward Voltage	V _{SD}	V _{GS} =0V I _S =-1.0A			-1.4	V
Input Capacitance	C _{iss}	V _{DS} =-25V V _{GS} =0V f=1.0MHz		2100		pF
Output Capacitance	C _{oss}			1900		pF
Reverse Transfer Capacitance	C _{rss}			640		pF
Gate resistance	R _g	V _{DS} =0V V _{GS} =0V f=1.0MHz		4		Ω
Total Gate Charge	Q _{g(10V)}	V _{GS} =-10V V _{DS} =-15V I _D =-10A		35		nC
Total Gate Charge	Q _{g(4.5V)}			17		nC
Gate-Source Charge	Q _{gs}			5.7		nC
Gate-Drain Charge	Q _{gd}			8.8		nC
Turn-On Delay Time	t _{d(on)}	V _{DS} =-15 V V _{GS} =-10V R _L =1Ω R _{GEN} =3Ω		11		ns
Turn-On Rise Time	t _r			7.5		ns
Turn-Off Delay Time	t _{d(off)}			43.5		ns
Turn-Off Fall Time	t _f			17.5		ns

P- / P-CHANNEL Electrical Characteristic Curve



P-CHANNEL Electrical Characteristic Curve





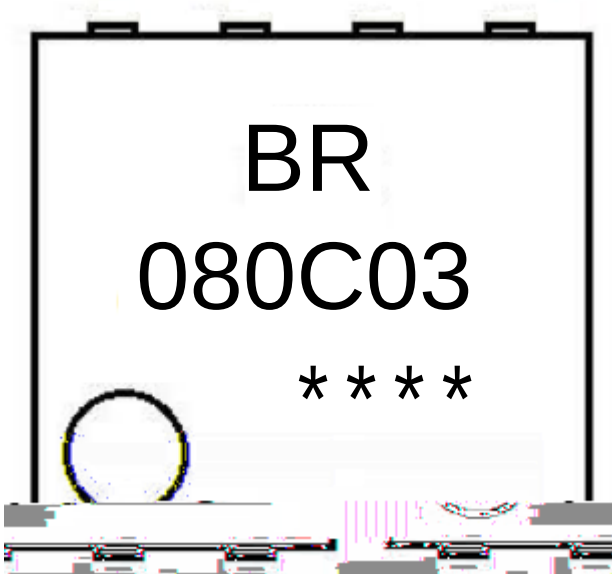
/ Package Dimensions

PDFN3X3-8L

Unit:mm



/ Marking Instructions



BR	N
080C03	N
****	N

Note:

BR:	Company Code
080C03:	Product Type Code
****:	Lot No. Code, code change with Lot No

() / Temperature Profile for IR Reflow Soldering(Pb-Free)

- ب
- 1 أ 150 180 ج 60 90sec;
- 2 245±5 د 5±0.5sec;
- 3 هـ 2 10 /sec.

- Note:
- 1.Preheating:150~180 , Time:60~90sec.
- 2.Peak Temp.:245±5 , Duration:5±0.5sec.
3. Cooling Speed: 2~10 /sec.