

PDFN3×3-8L
MOS

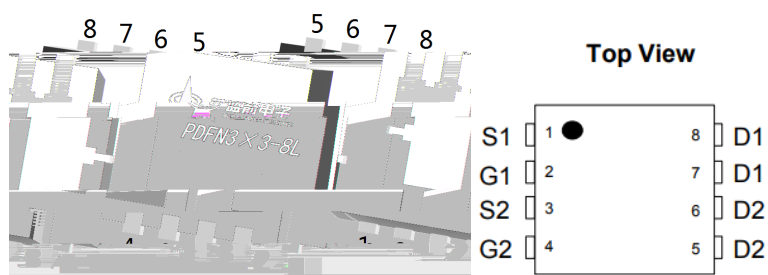
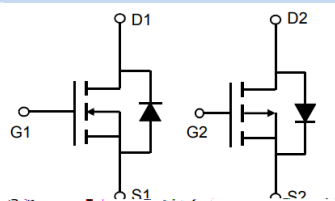
Complementary Enhancement MOSFET in a PDFN3×3-8L Plastic Package.

N-channel
 $V_{DS}(V)=30V$
 $I_D=20A$
 $R_{DS(ON)}<25m\ (V_{GS}=10V)$
 $R_{DS(ON)}<40m\ (V_{GS}=4.5V)$

HF Product.

P-channel
 $V_{DS}(V)=-30V$
 $I_D=-12A$
 $R_{DS(ON)}<60m\ (V_{GS}=-10V)$
 $R_{DS(ON)}<85m\ (V_{GS}=-4.5V)$
DC/DC

These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies. And suitable for use as a load switch or in PWM applications.



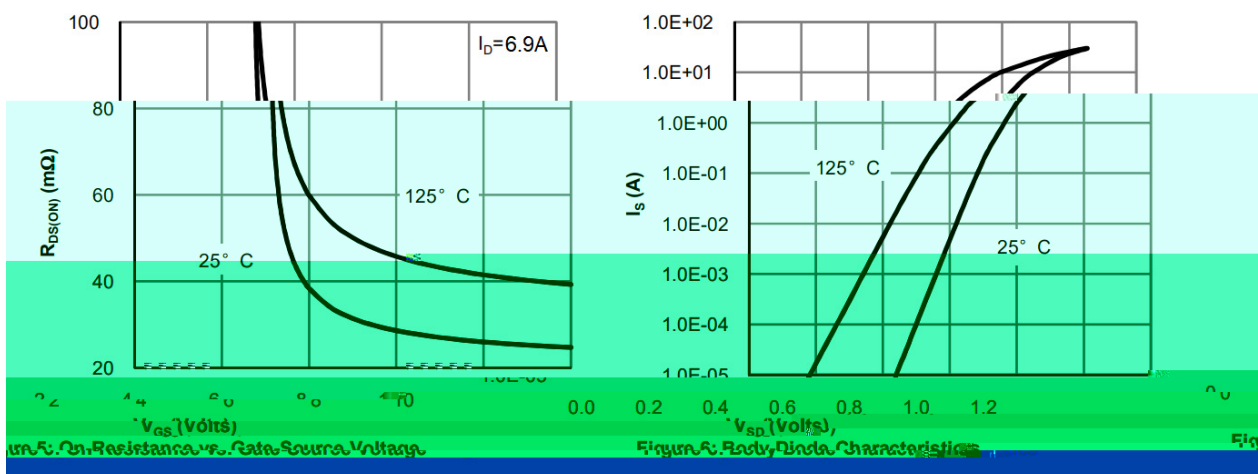
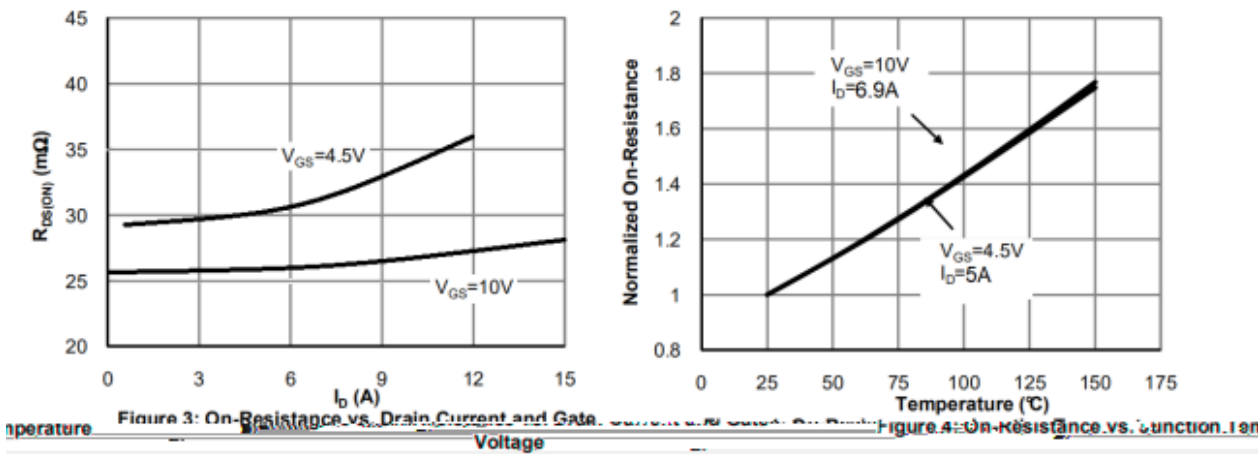
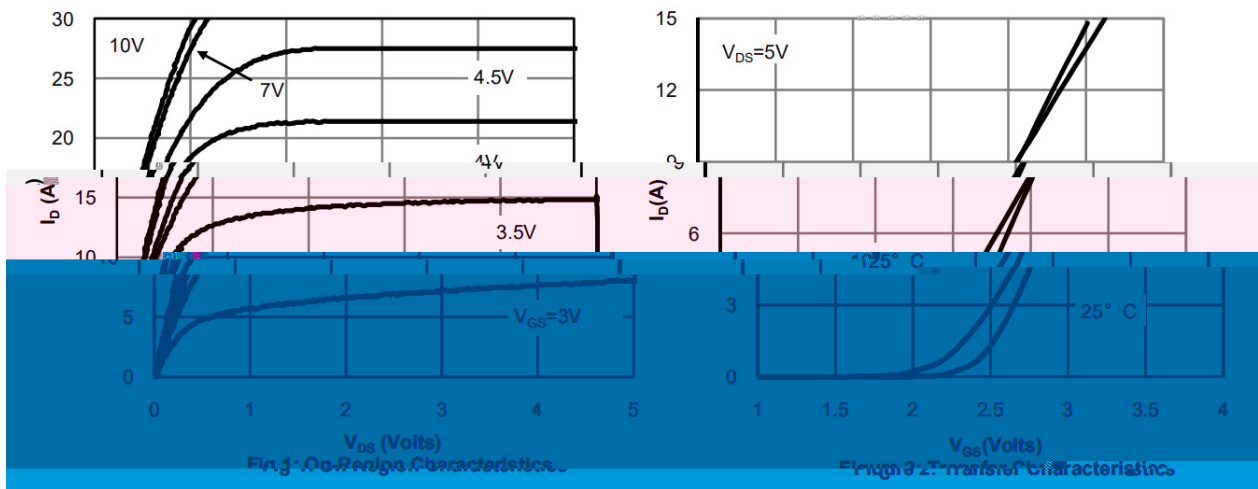
See Marking Instructions.

Parameter	Symbol	Rating		Unit
		N-channe	P-channell	
Drain-Source Voltage	V_{DSS}	± 30		V
Gate-Source Voltage	V_{GSS}	± 20		V
Continuous Drain Current	$I_D (T_C=25^{\circ}C)$	20	-12	A
Continuous Drain Current	$I_D (T_A=25^{\circ}C)$	7.7	-4.3	A
Power Dissipation	$P_D (T_C=25^{\circ}C)$	11.2	10	W
Power Dissipation	$P_D (T_A=25^{\circ}C)$	2.7	1.8	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150		
Maximum Junction-to-Ambient	$R_{\theta JA}(\text{Steady-State})$	45		/W
Maximum Junction-to-Case	$R_{\theta JC}(\text{Steady-State})$	11.2	12.5	/W

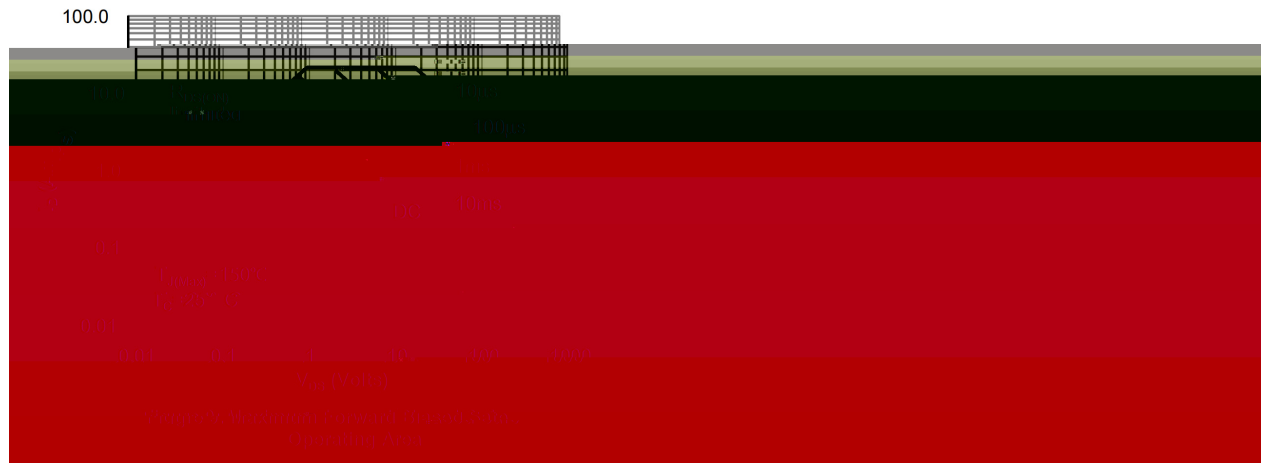
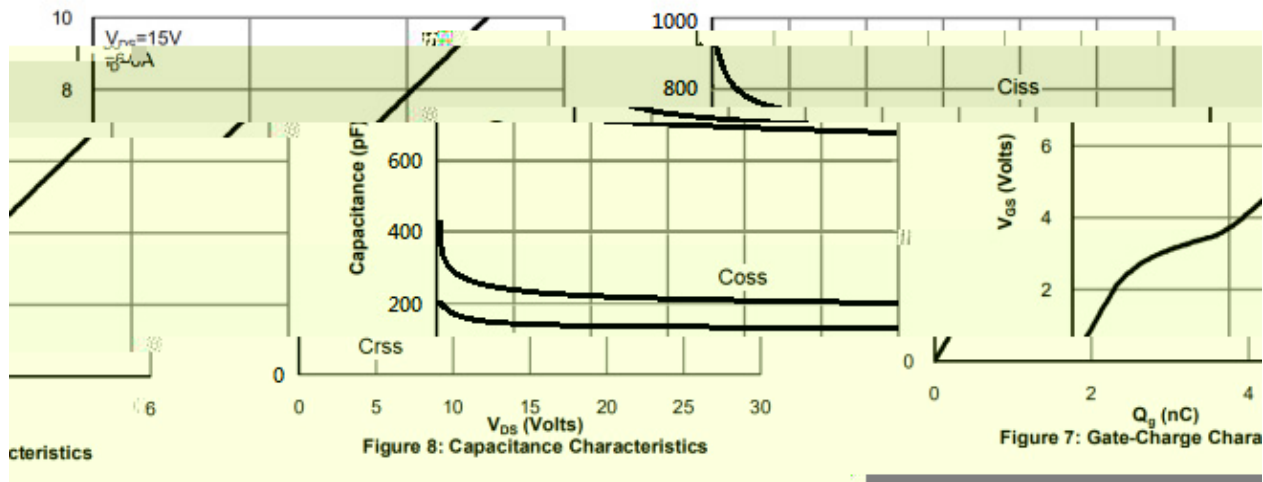
N- /

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\text{ A}$	30	35		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=30V$ $V_{GS}=0V$			1.0	A
		$V_{DS}=30V$ $V_{GS}=0V$ $T_J=55^\circ\text{C}$			5.0	A
Gate-Body leakage current	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\text{ A}$	1.0	1.6	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=6.9A$		20	25	m
		$V_{GS}=4.5V$ $I_D=5.0A$		28	40	m
Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=1.0A$		0.78	1.2	V
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0\text{MHz}$		690		pF
Output Capacitance	C_{oss}			200		pF
Reverse Transfer Capacitance	C_{rss}			130		pF
Gate resistance	R_g	$V_{DS}=0V$ $V_{GS}=0V$ $f=1.0\text{MHz}$		2.7		Ω
Total Gate Charge(10V)	Q_g	$V_{GS}=10V$ $V_{DS}=15V$ $I_D=6A$		5.2		nC
Total Gate Charge(4.5V)				2.5		nC
Gate-Source Charge	Q_{gs}			0.8		nC
Gate-Drain Charge	Q_{gd}			1.3		nC
Turn-On Delay Time	$t_{d(on)}$	$V_{DS}=15\text{ V}$ $V_{GS}=10V$ $R_L=2.5$ $R_{GEN}=3$		4.5		ns
Turn-On Rise Time	t_r			2.5		ns
Turn-Off Delay Time	$t_{d(off)}$			14.5		ns
Turn-Off Fall Time	t_f			3.5		ns

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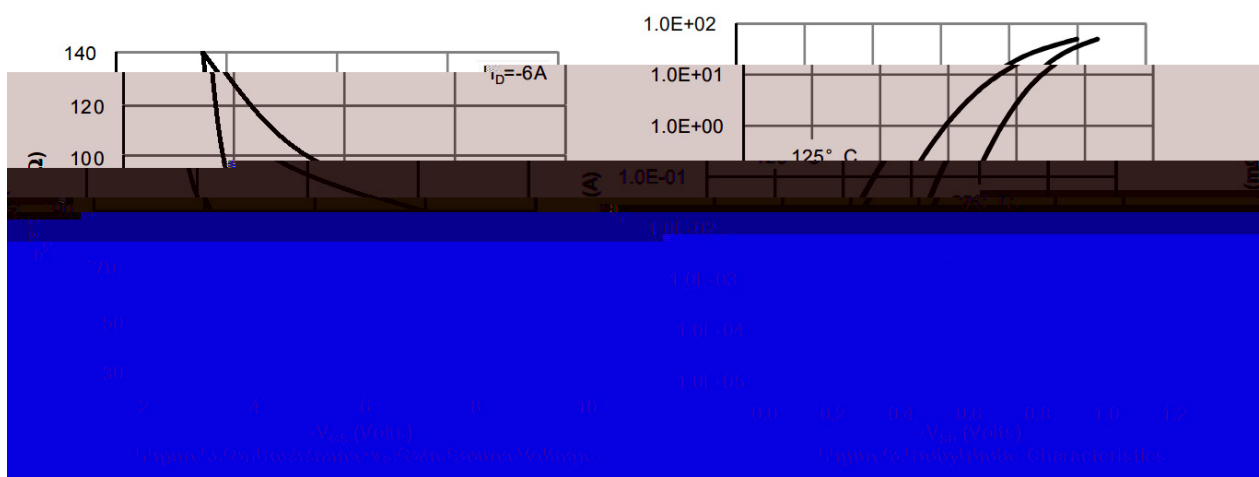
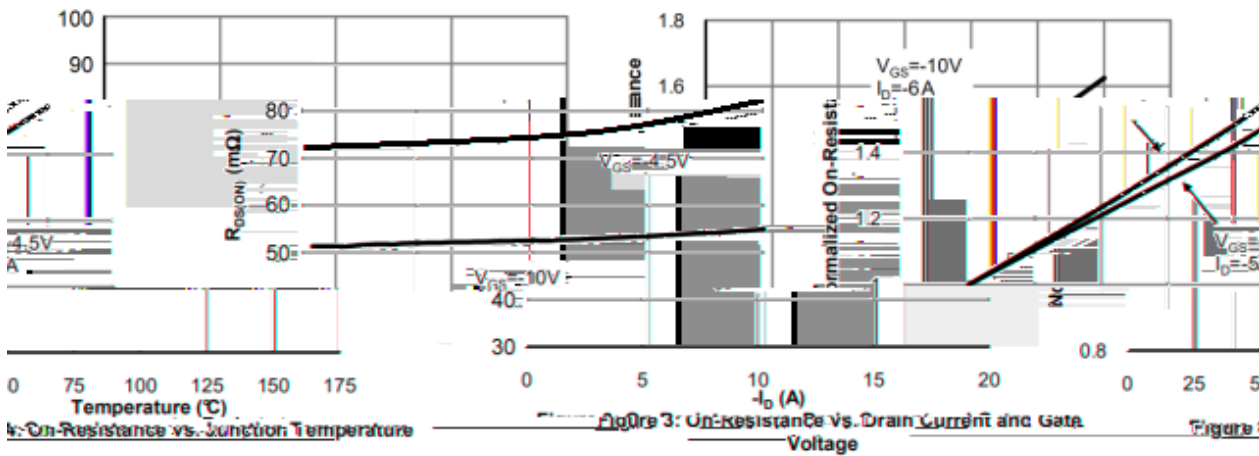
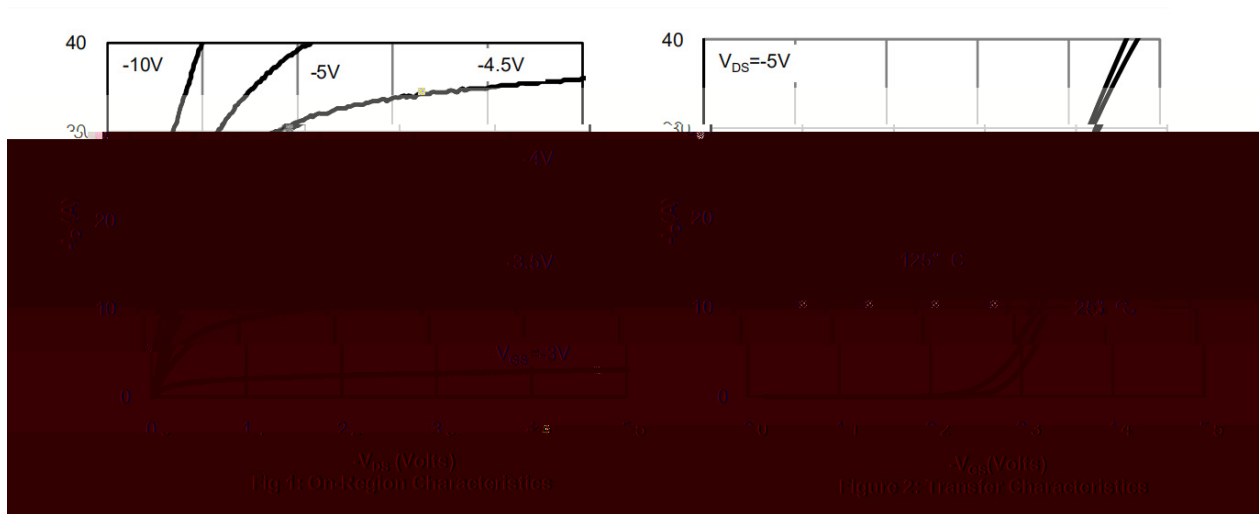


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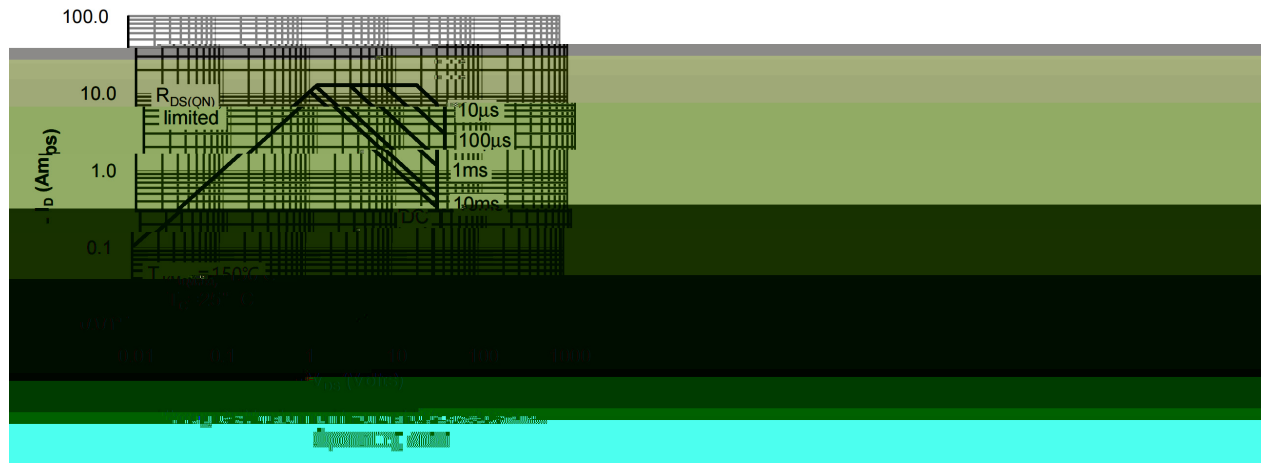
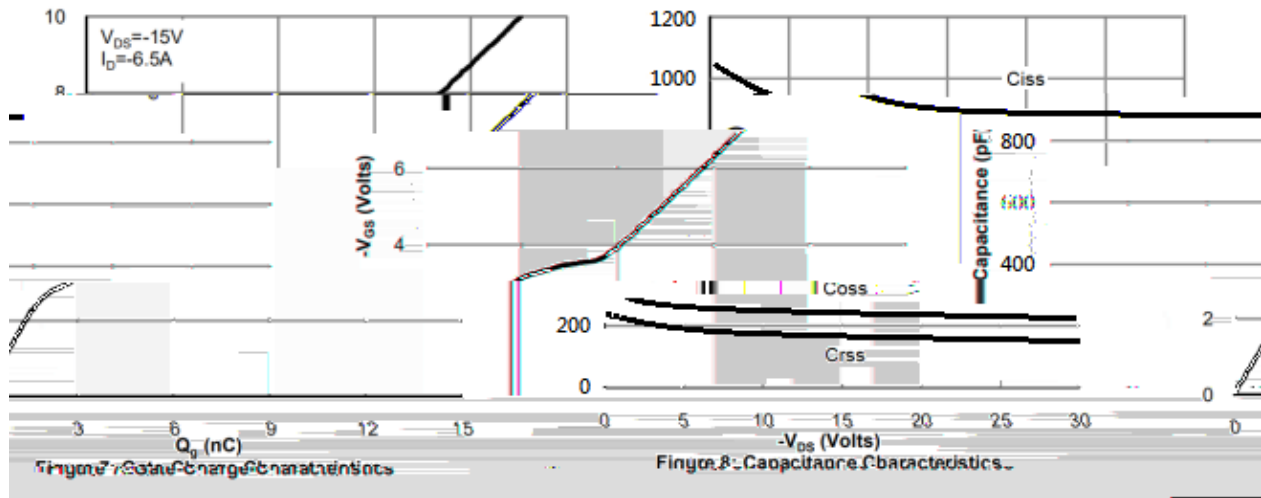


Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown						

P-

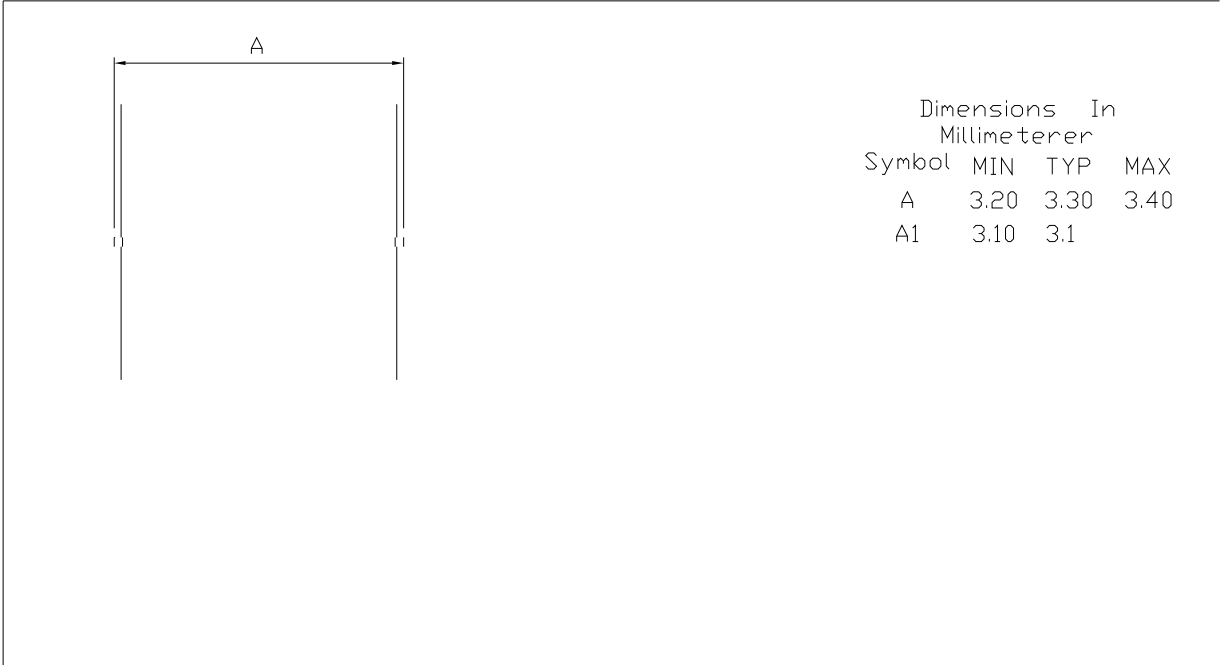


P-



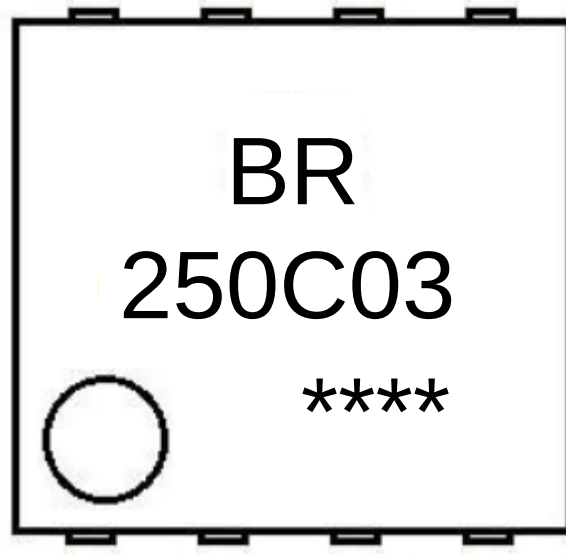
P.DFN3X3-8L

Unit:mm



Dimensions In Millimeterer			
Symbol	MIN	TYP	MAX
A	3.20	3.30	3.40
A1	3.10	3.1	

Rev.00 202011



BR

250C03

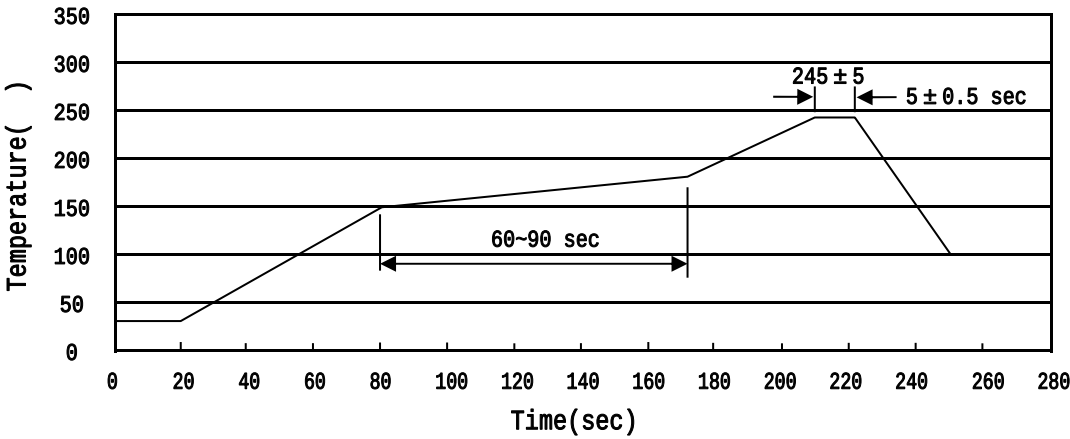
Note:

BR: Company Code

250C03: 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
PDFN3×3-8L	5,000	2	10,000	6	60,000	13" ×12	360×360×50	380×335×366