

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

P a a		S b	R a	U
D a -S c V a		V_{DS}	60	V
C D a C		I_D	43	A
P d D a C		I_{DM}	111	A
G a -S c V a		V_{GS}	± 20	V
P D a		$P_D(T_c=25^\circ\text{C})$	43	W
A a a c (L=0.5 H		E_{AS}	200	J
A a a c C (L=0.5 H		I_{AS}	20	A
J c a d S a T a R a		T_j, T_c	-55 150	
M a J c - -A b	≤ 10	$R_{\theta JA}$	25	W
	S a d -S a		60	
M a J c - -C a	S a d -S a	$R_{\theta JC}$	2.9	

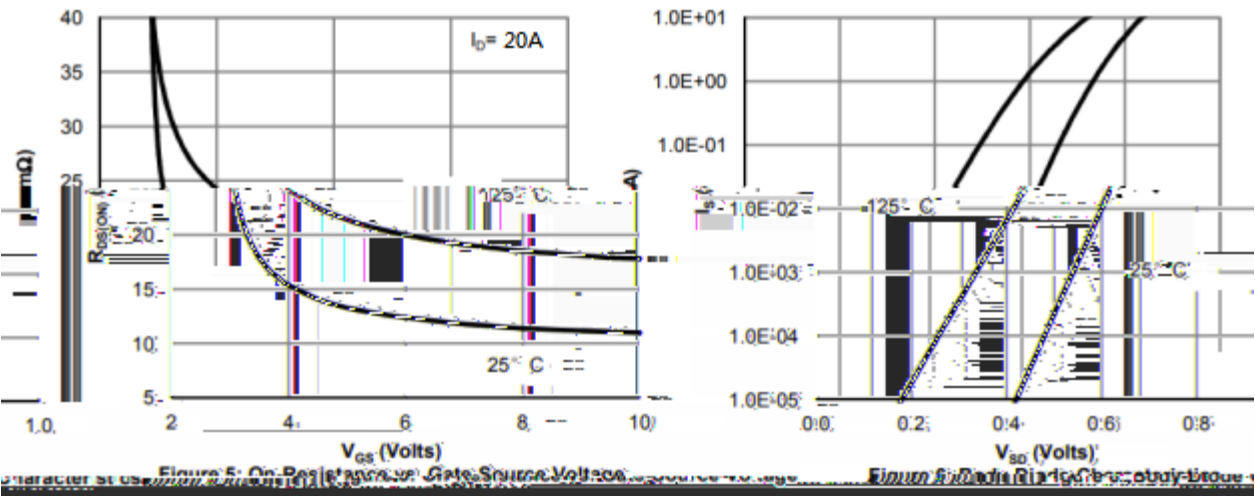
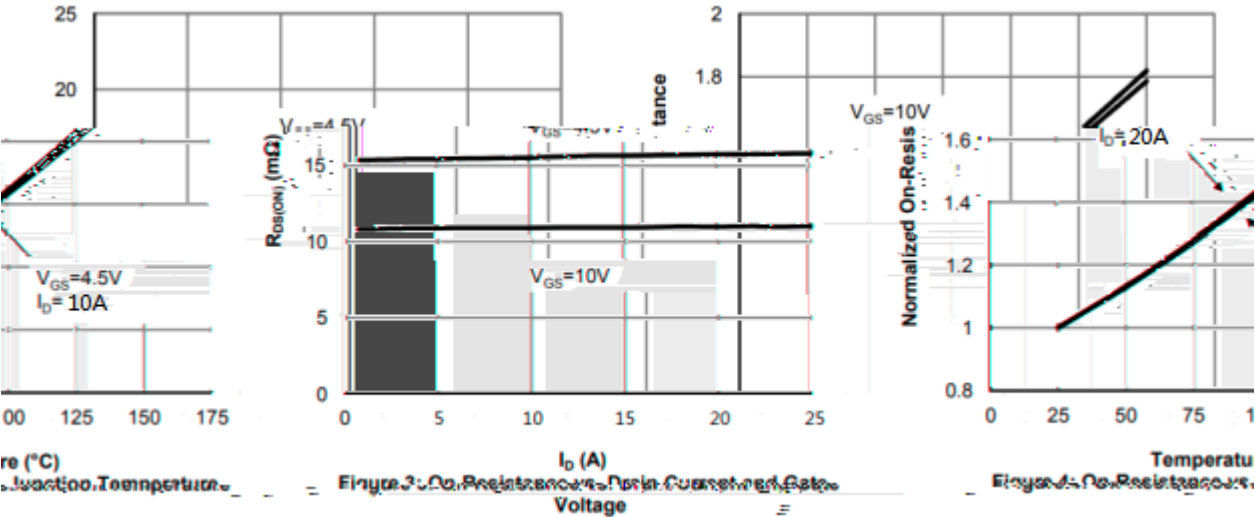
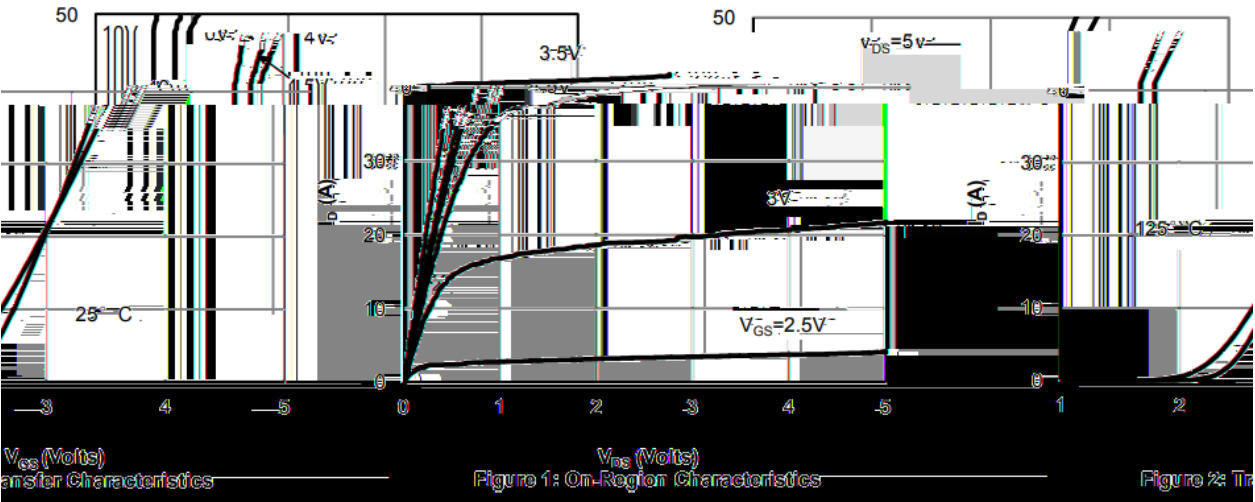
/ Electrical Characteristics($T_a=25^\circ\text{C}$)

P a a	S b	T C d	M	T	M a	U
D a -S c B a d V a	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	60	64		V
Z G a V a D a C	I_{DSS}	$V_{DS}=60V$ $V_{GS}=0V$			1	μA
G a -B d L a a C F a d	I_{GSS}	$V_{GS}=20V$ $V_{DS}=0V$			0.1	μA
G a T d V a	$V_{GS(ON)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	1.0	1.6	2.5	V
S a c D a -S c O -R a c	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=20A$		11.5	13	Ω
		$V_{GS}=4.5V$ $I_D=10A$		15.5	18	Ω
D a -S c D d F a d V a	V_{SD}	$V_{GS}=0V$ $I_S=1A$			1.2	V
I C a a c a c	C	$V_{DS}=25V$ $V_{GS}=0V$ $f=10MHz$		1010		F
O C a a c a c	C			250		
R T a C a a c a c	C			280		
G a a c	R	$V_{GS}=0V$ $V_{DS}=0V$ $f=1MHz$		2.3		Ω
T a G a C a	$Q_{g(10V)}$	$V_{GS}=10V$ $V_{DS}=30V$ $I_D=13A$		13.5		C
T a G a C a	$Q_{g(4.5V)}$			6.5		
G a S c C a	Q			2.5		
G a D a C a	Q_d			3.0		

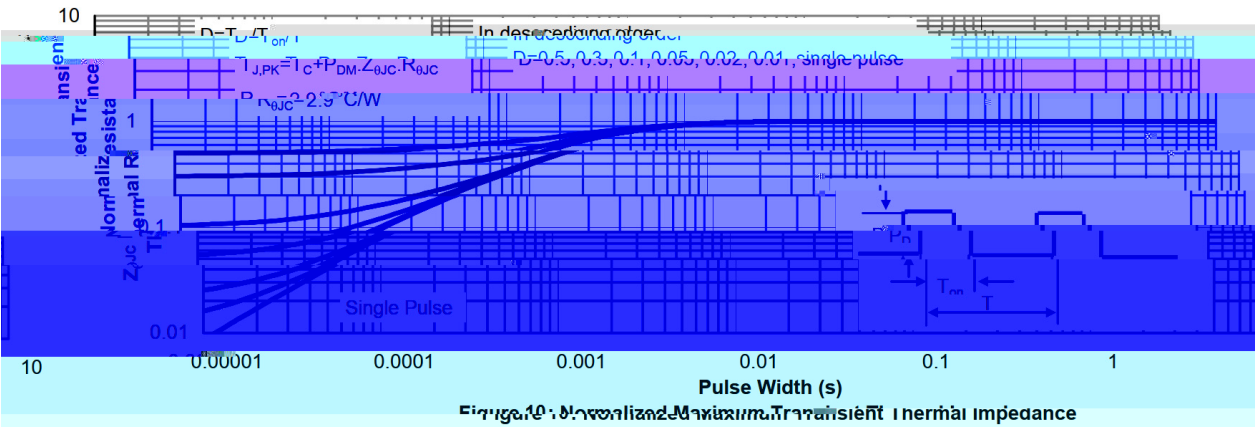
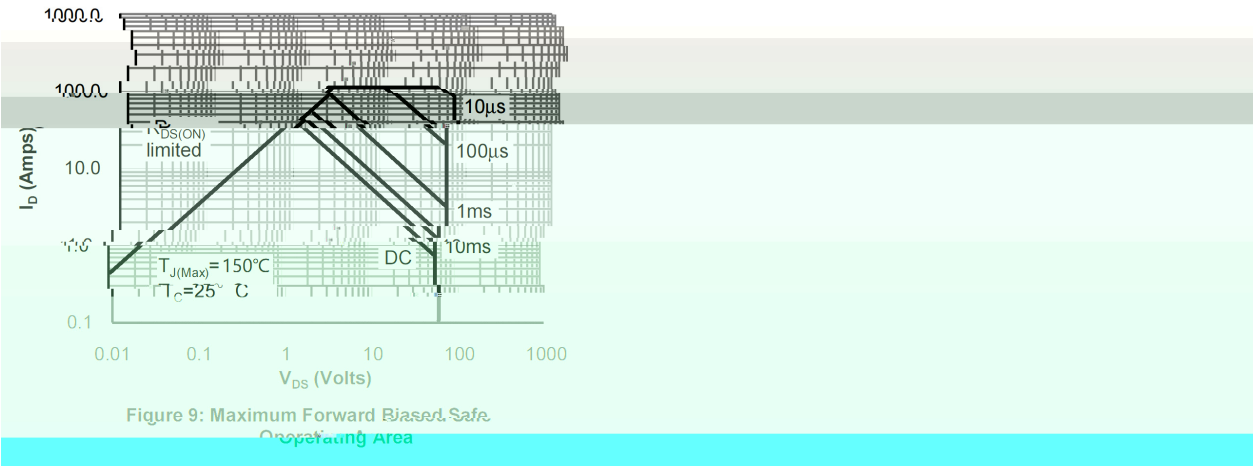
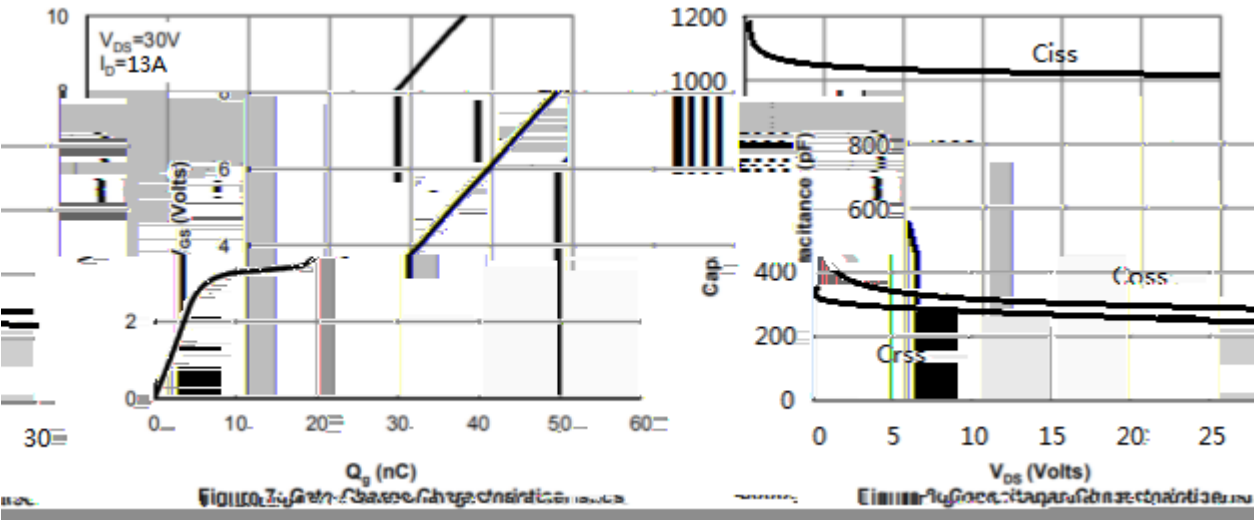
/ Electrical Characteristics(Ta=25)

Pa a	S b	T C d	M	T	Ma	U
T -O D a T	d(	V _{GS} =10V R _L =2 3ΩV _{DS} =30V R _{GEN} =3Ω		5		
T -O R T				3		
T -O D a T	d(			19		
T -O Fa T				3		

/ Electrical Characteristic Curve



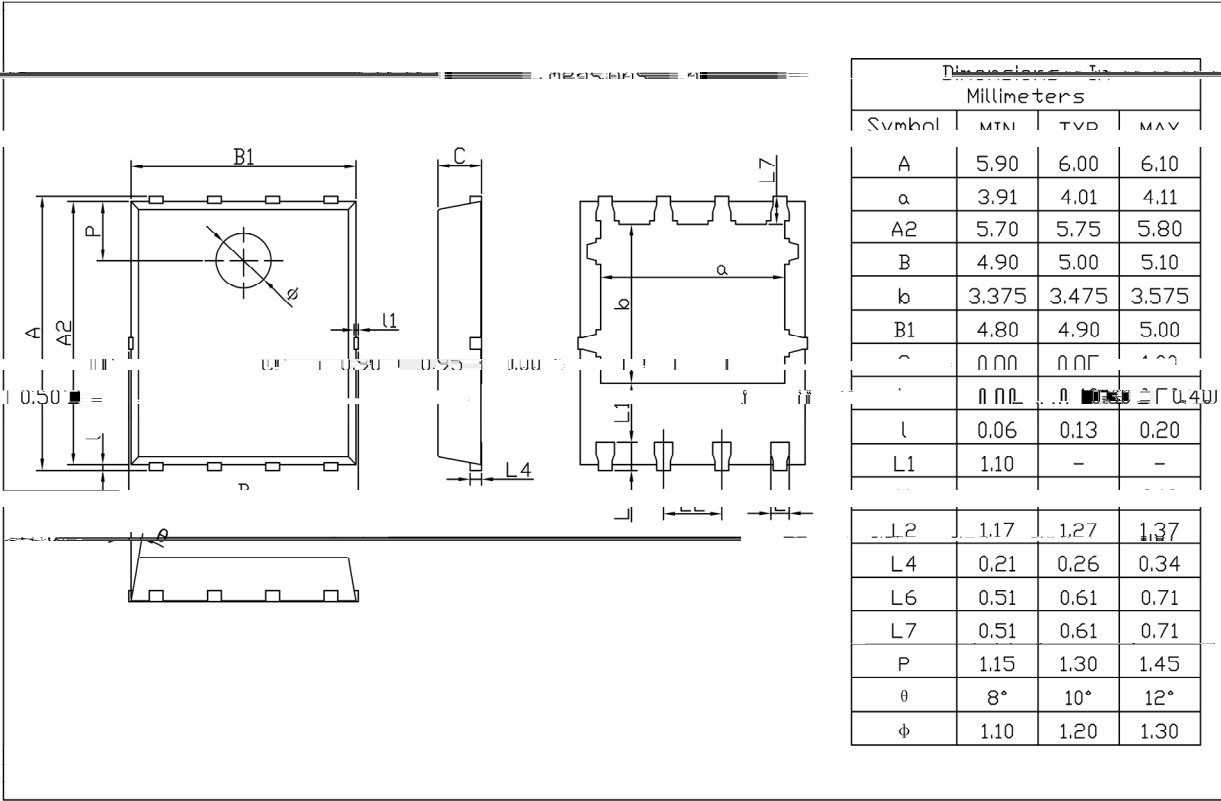
/ Electrical Characteristic Curve



/ Package Dimensions

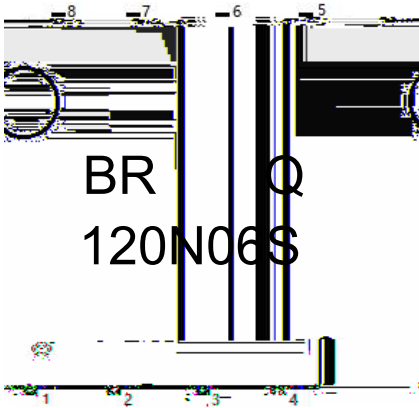
PDFN5 X6

Unit:mm



Rev.01 202209

/ Marking Instructions



BR

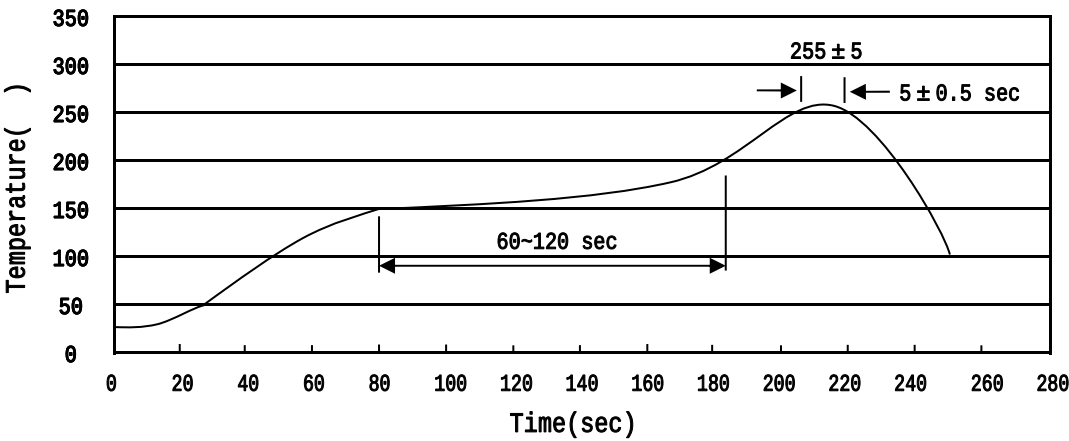
Q

120N06S

N

BR	C	a	C d
Q:	A	b	a - d c C d
120N06S	P	d c T	C d
:	L	N C d , c d c a	L N

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



N :

- 115020060120 c; 1 P a :150 200 , T :60 120 c
- 2255±55±0.5 c; 2 P a T :255±5 , D a :5±0.5 c
- 3210 c3 C S d: 2 10 c

/ Resistance to Soldering Heat Test Conditions

260±510±1 cT :260 5T :10 1 c

/ Packaging SPEC.

REEL

Pac a T	U					D (3		
	/	/	/	/	/			
PDFN5 6	5,000	2	10,000	6	60,000	13 12	360 360 50	380 335 366

/ Notices