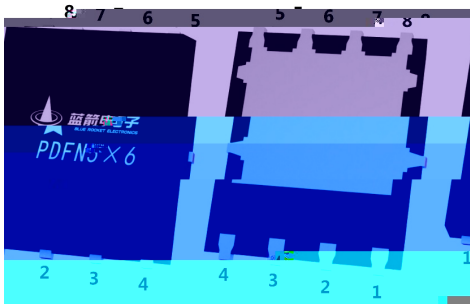
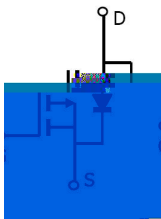


PDFN5×6 P
P-Channel MOSFET in a PDFN5×6 Plastic Package.

$V_{DS} (V) = -100V$ $I_D = -73A (V_{GS} = \pm 20V)$
 $R_{DS(ON)} @ -10V \leq 19m\Omega (Typ. 17m\Omega)$
 $R_{DS(ON)} @ -4.5V \leq 21m\Omega (Typ. 18.5m\Omega)$
 。 HF Product.

DC-DC
Motor drivers, DC-DC Converte.



PIN1、2、3: S PIN4: G PIN5、6、7、8: D

Pin	极性
1	S
2	S
3	S
4	G
5	D
6	D
7	D
8	D

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-100	V
Drain Current	$I_D^* (T_C=25^\circ\text{C})$	-73	A
	$I_D^* (T_C=100^\circ\text{C})$	-51	A
Drain Current - Pulsed	$I_{DM}^{*,**}$	-166	A
Gate-Source Voltage	V_{GS}	± 20	V
Continuous-Source Current	I_S	-73	A
Single Pulsed Avalanche Energy ($V_{DD}=-50\text{V}, L=-1.0\text{mH}$)	E_{AS}	744	mJ
Drain power dissipatio	$P_{tot}(T_C=25^\circ\text{C})$	250	W
Storage Temperature	T_{stg}	-55 to 175	
Junction Temperature	T_J	175	
Thermal Resistance- Junction to Ambient	R_{JA}^*	56	/W
Thermal Resistance- Junction to Case	R_{JC}^*	0.6	$^\circ\text{C/W}$

Notes

- * Surface Mounted on 1 in² pad area, t = 10 sec
- ** Pulse width = 300 μs , duty cycle = 2 %
- *** Limited by bonding wire

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D = -250\text{ A}, V_{GS} = 0\text{ V}$	-100			V
Drain Leakage Current	I_{DSS}	$V_{DS} = -80\text{ V}, V_{GS} = 0\text{ V}$			-1	A
Gate Leakage current	I_{GSS}	$V_{DS} = 0\text{ V}, V_{GS} = \pm 20\text{ V}$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu\text{ A}$	-1.0		-2.5	V
On-State Resistance	$R_{DS(on)}^a$	$V_{GS} = -10\text{ V}, I_D = -30\text{ A}$		17	19	m
		$V_{GS} = -4.5\text{ V}, I_D = -20\text{ A}$		18.5	21	
Diode Forward Voltage	V_{SD}^a	$I_S = -30\text{ A}, V_{GS} = 0\text{ V}$			-1.3	V
Reverse Recovery Time	t_{rr}	$I_D = -30\text{ A}, V_{GS} = 0\text{ V}$ $dI_{SD}/dt = 100\text{ A/s}$		41		nS
Reverse Recovery Charge	Q_{rr}			75		nC
Input Capacitance	C_{iss}	$V_{GS} = 0, V_{DS} = -50\text{ V}$ $f = 1\text{ MHz}$		14265		pF
Output Capacitance	C_{oss}			301		
Reverse Transfer Capacitance	C_{rss}			30		
Total Gate Charge	Q_g	$V_{GS} = -10\text{ V}, V_{DS} = -50\text{ V}$ $I_D = -30\text{ A}$		245		nC
Gate-Source Charge	Q_{gs}			56		
Gate-Drain Charge	Q_{gd}			27		
Turn-on Delay Time	$t_{d(ON)}$	$V_{GS} = -10\text{ V}, V_{DS} = -50\text{ V}$ $R_L = 1.66\text{ }\Omega, R_G = 3.9\text{ }\Omega$ $I_D = -30\text{ A}$		13		ns
Turn-on Rise Time	t_r			49		
Turn-off Delay Time	$t_{d(OFF)}$			329		
Turn-off Fall Time	t_f			115		

Notes

a : Pulse test ; pulse width 300 μs , duty cycle 2%

b : Guaranteed by design, not subject to production testing

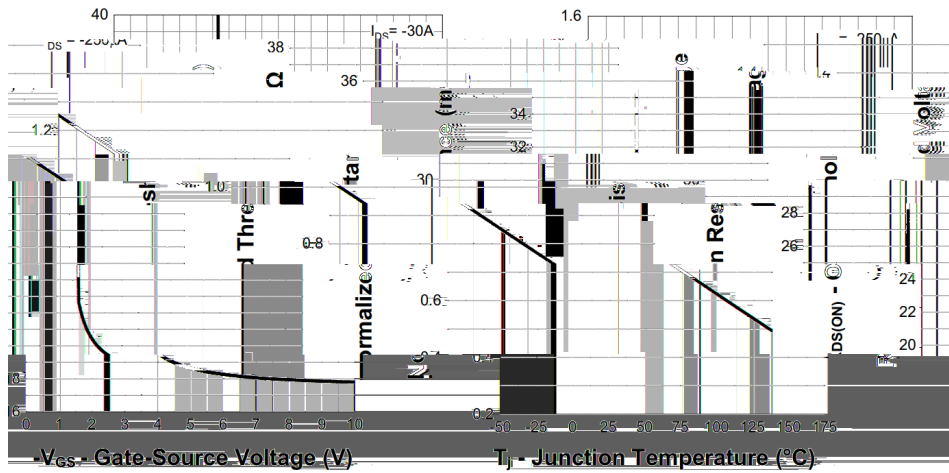


Figure 7: Transfer Characteristics

Figure 8: Normalized Threshold Voltage

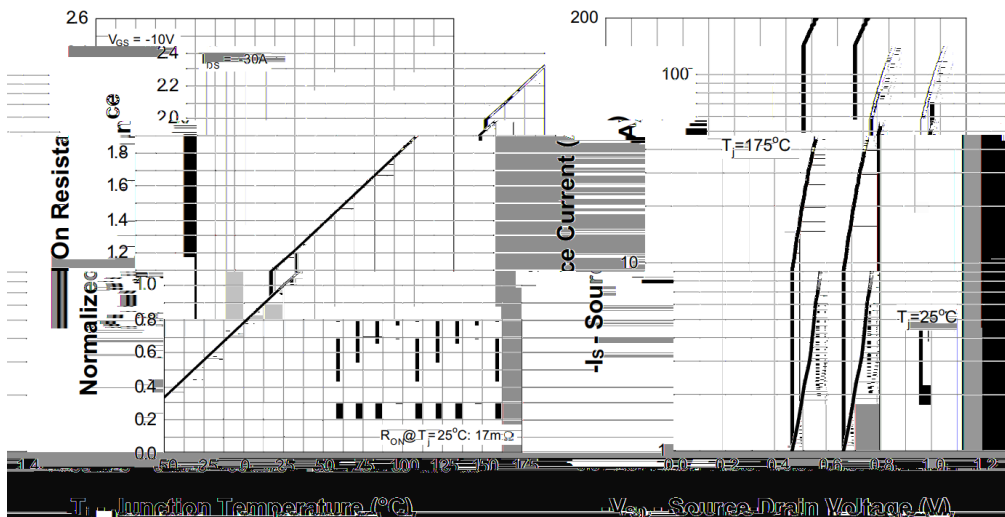


Figure 9: Normalized On-Resistance

Figure 10: Diode Forward Current

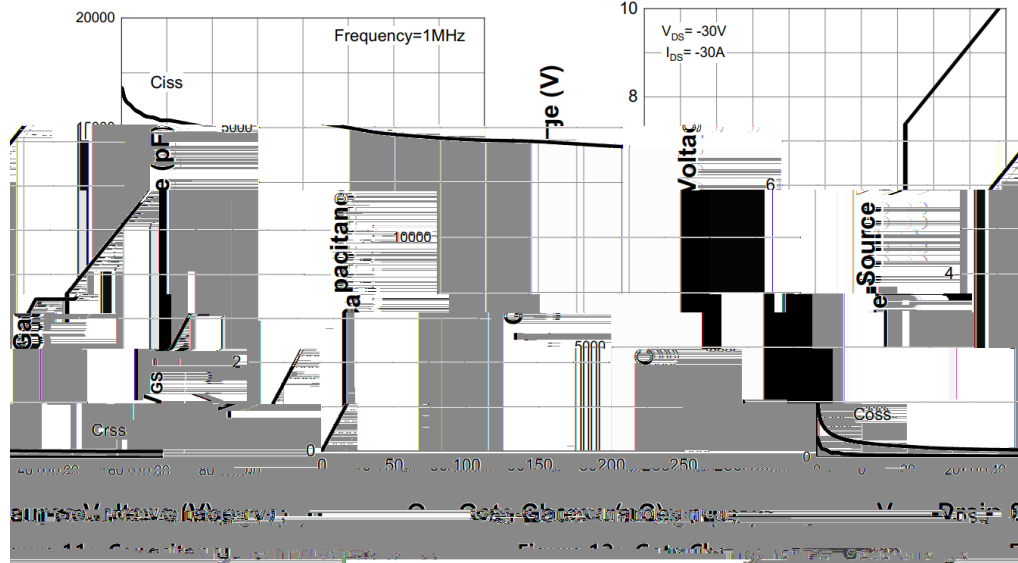
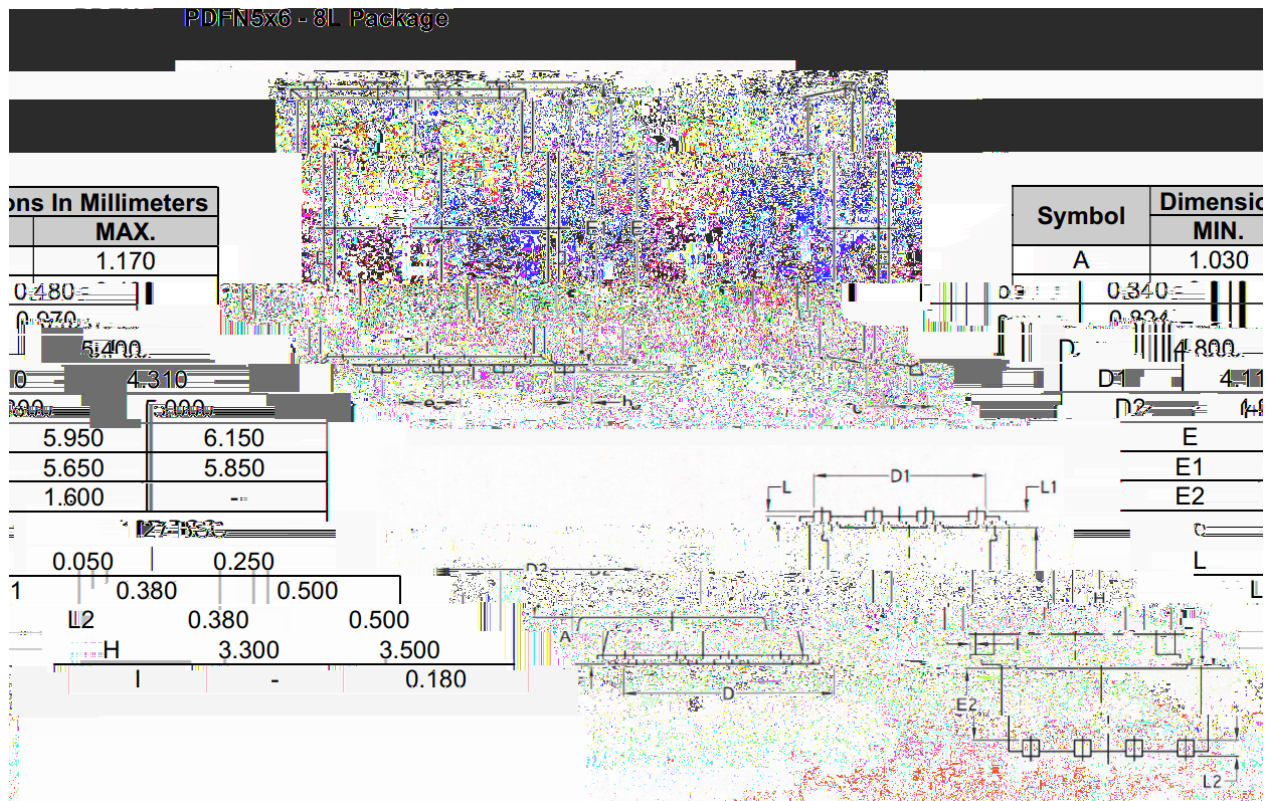


Figure 11: Capacitance

Figure 12: Output Characteristics

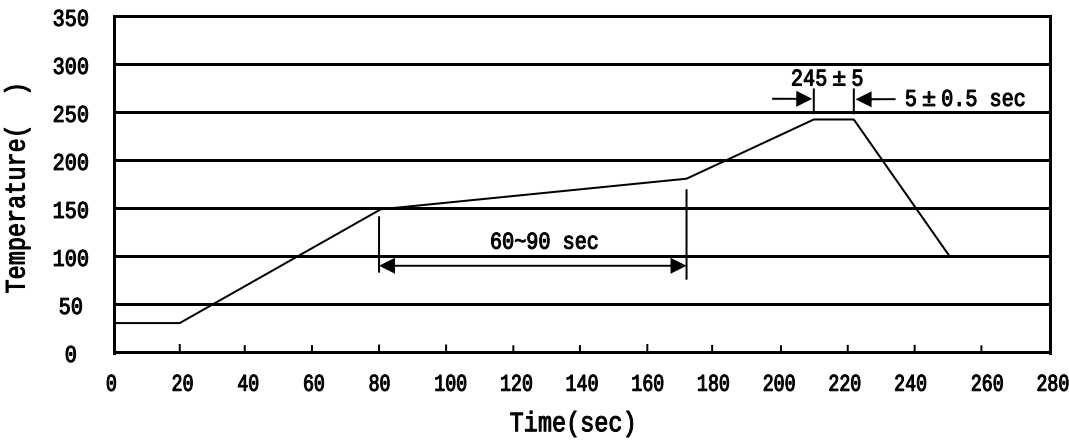




BR
200P10

Note	
BR	Company Code
200P10	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 °C , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 °C , Duration:5±0.5sec.
- 3

2 10

/sec.

3. Cooling Speed: 2~10 °C/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
PDFN5×6	5,000	2	10,000	6	60,000	13"×12	360×360×50	380×335×366

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