

P-Channel Enhancement Mode Field Effect Transistor in a PDFN 3x3A-8L Plastic Package.

$$V_{DS} \text{ (V)} = -40\text{V}$$

R_{DS(ON)}@-10V 13.5mR(Typ.11.6mR)

HF Product.

/

Notebook AC-in load switch, Battery protection charge/discharge.

出脚	定义
Pin1	S
Pin2	S
Pin3	S
Pin4	G
Pin5	D
Pin6	D
Pin7	D
Pin8	D

See Marking Instructions.

BRCS120P04YB

Rev.A Dec.-2022

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	-40	V
Drain Current - Continuous		$I_D(T_c=25^\circ\text{C})$	-41	A
Drain Current – Pulsed		I_{DM}	-72	A
Gate-Source Voltage		V_{GS}	20	V
Power Dissipation		$P_D(T_c=25^\circ\text{C})$	30	W
Single Pulse Avalanche Energy(L=0.5mH)		E_{AS}	317.5	mJ
Avalanche Current(L=0.5mH)		I_{AS}	-31.5	A
Junction and Storage Temperature Range		T_j, T_{stg}	-55 to 150	
Thermal resistance, junction - ambient	t = 10s	R_{JA}	22	/ W
	Steady-State		55	
Thermal resistance, junction - case	Steady-State	R_{JC}		

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-10V$ $V_{DS}=-20V$ $R_L=0.75$ $R_{GEN}=3$		11		ns
Turn-On Rise Time	t_r			7.8		
Turn-Off Delay Time	$t_{d(off)}$			44		
Turn-Off Fall Time	t_f			18		

/ Electrical Characteristic Curve

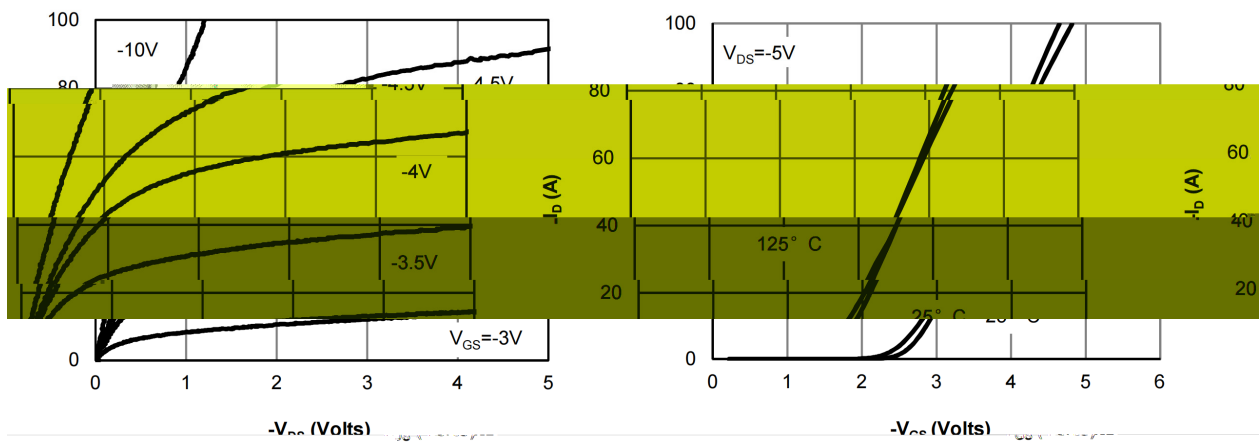


Figure 1: Transfer Characteristics Figure 2: On-Resistance Characteristics

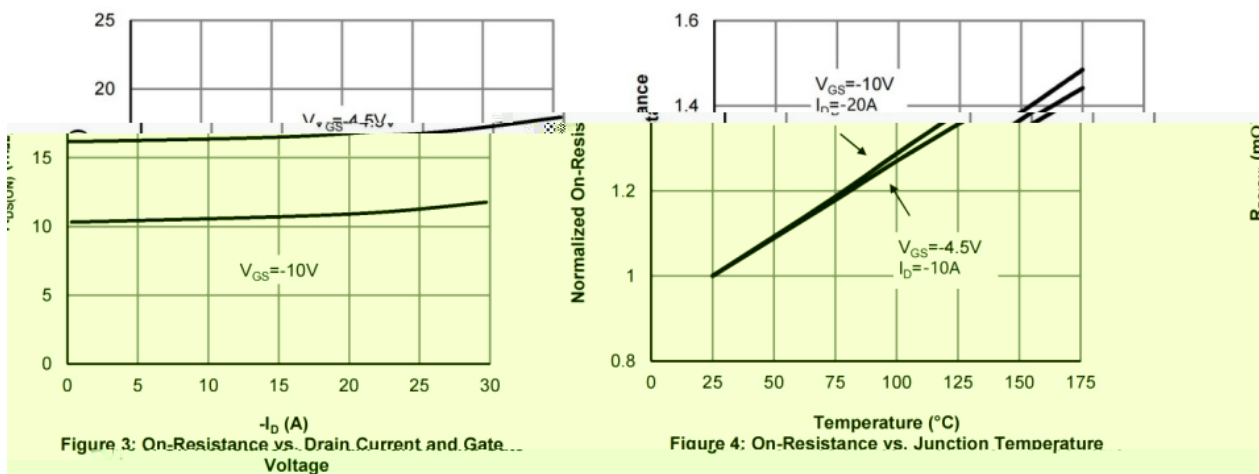


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

Figure 4: On-Resistance vs. Junction Temperature

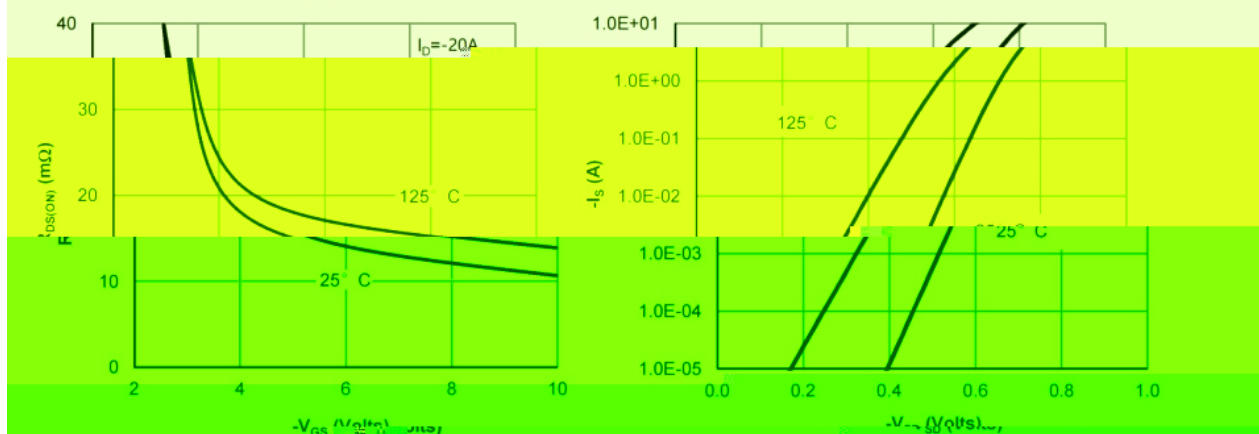
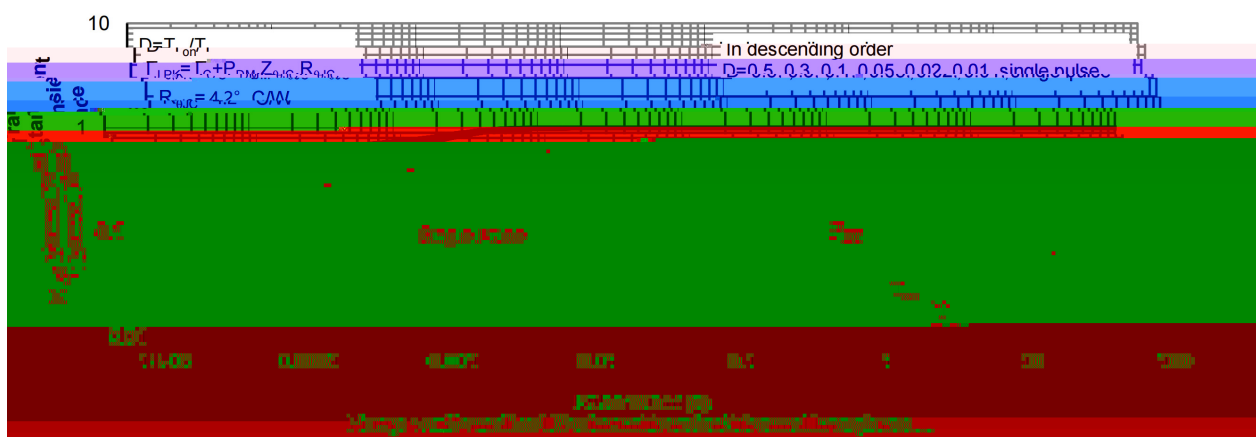
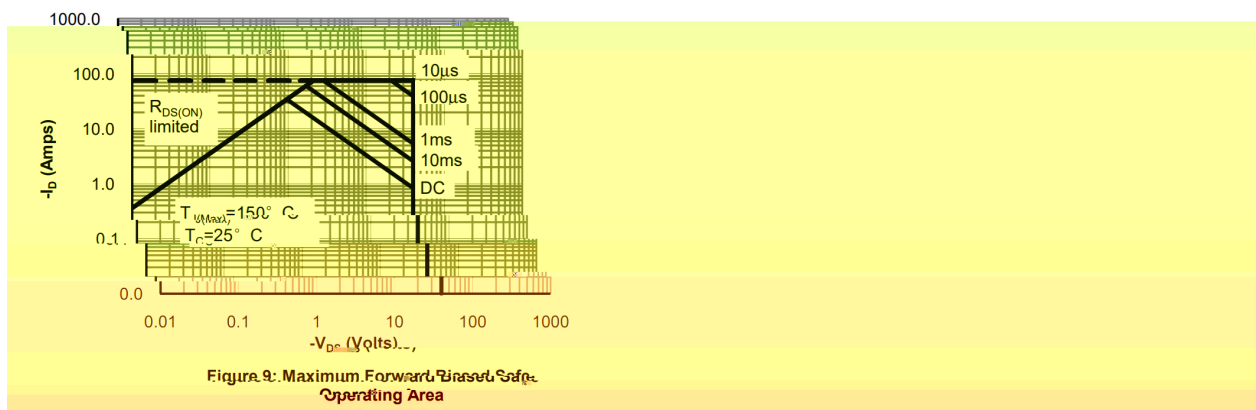
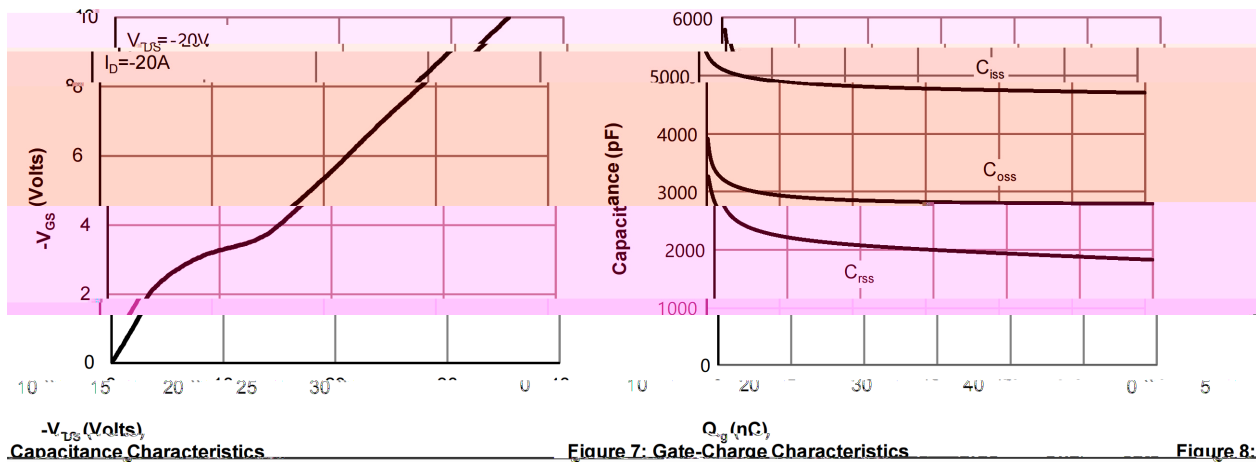


Figure 5: On-Resistance vs. Gate-Source Voltage

Figure 6: Body-Diode Characteristics

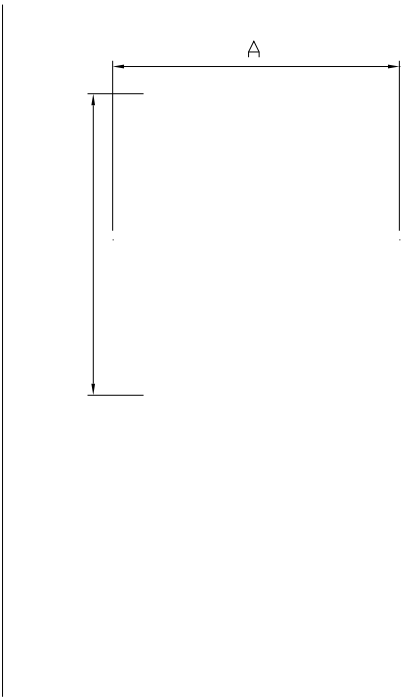
Electrical Characteristic Curve



/ Package Dimensions

PDFN3X3A-8L

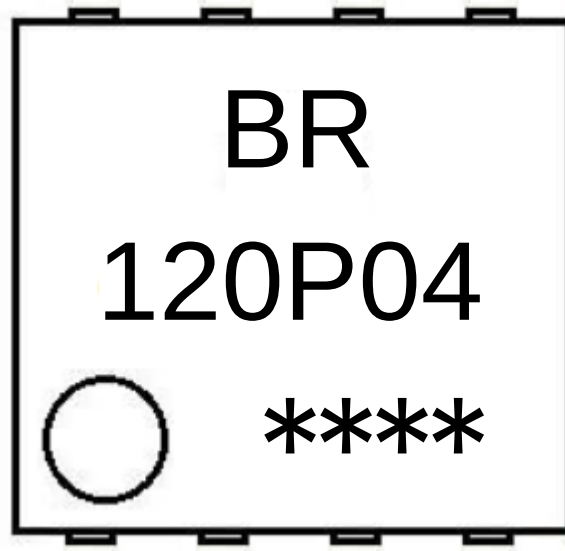
Unit:mm



Dimensions In Millimeterer			
Symbol	MIN	TYP	MAX
A	3.20	3.30	3.40
A1	3.10	3.15	3.20
B	3.20	3.30	3.40
B1	2.95	3.00	3.05

Rev.00 202011

/ Marking Instructions



BR

120P04

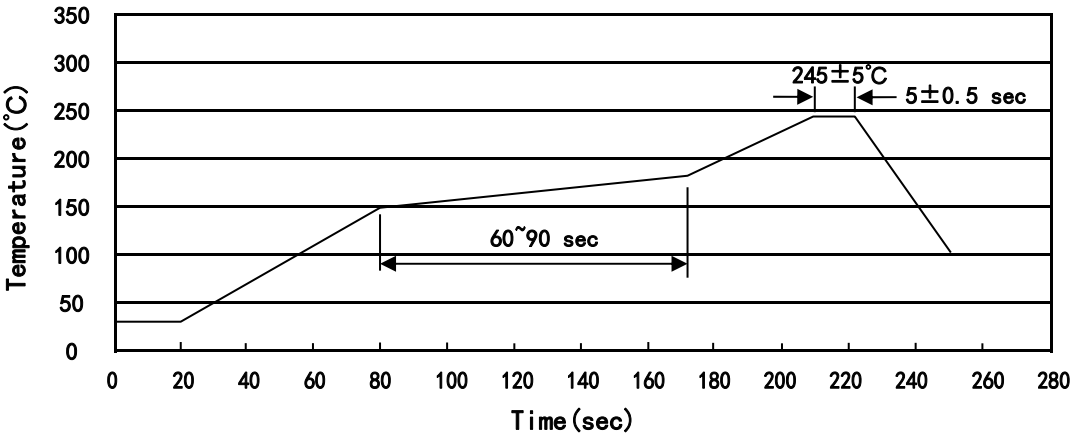
Note:

BR: Company Code

120P04: Product Type Code

*****: Lot No. Code, code change with Lot No

() /



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.

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ 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
PDFN 3 S 3A-8L	5,000	2	10,000	6	60,000	13 = ×12	360×360×50	380×335×366

/ Notices