BRCS1C2N10YB

Rev.B Aug.-2026

DATA SHEET

/ Descriptions

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N-Channel Enhancement Mode Field Effect Transistor in a PDFN 3Ö3A-8L Plastic Package.

/ Features

V_{DS} (V) = 100V I_D =9.0A (V_{GS} = ±20V)

$R_{DS(ON)}$@10V 125m (Typ.112m)

$R_{DS(ON)}$@4.5V 230m (Typ.155m)

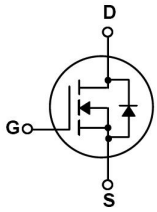
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/ Applications

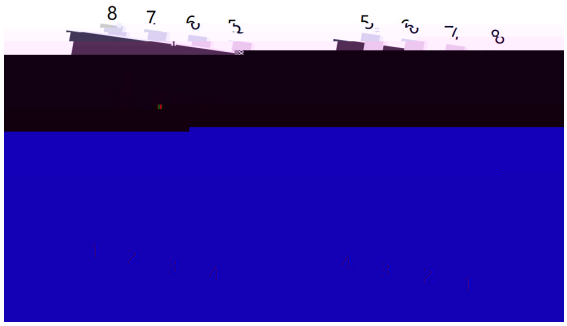
GF2GF ⊐ DF2GF ҷ Ω н ѧ ª ℓ Ϙ Ш ı ɔ ȝ ⊐ Ṫ ў ѧ ڸ GF2GF ҷ Ω н

Synchronous rectification in DC/DC and AC/DC converters Isolated DC/DC Converters in Telecom and Industrial.

/ Equivalent Circuit



/ Pinning



出脚	定义
Pin1	S
Pin2	S

/ Marking

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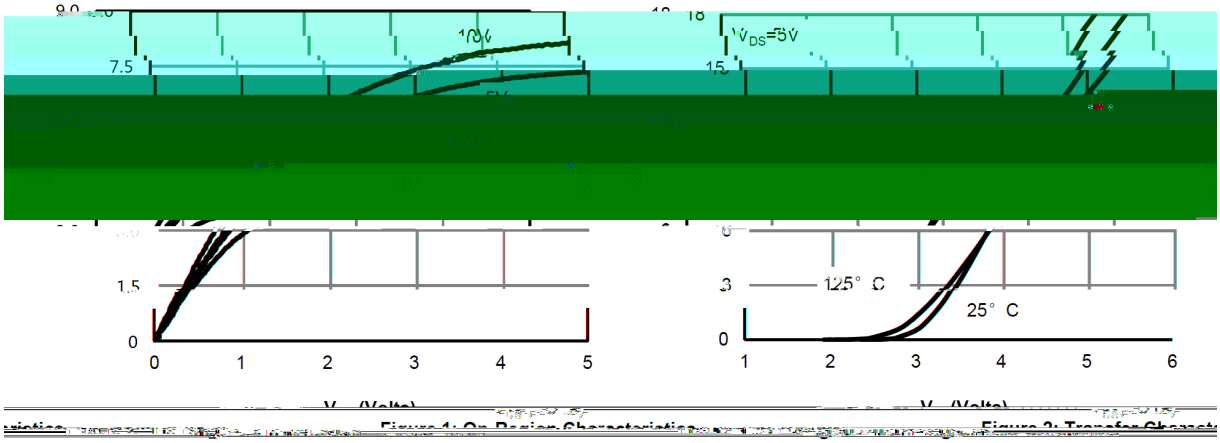
/ Absolute Maximum Ratings(T_C=25)

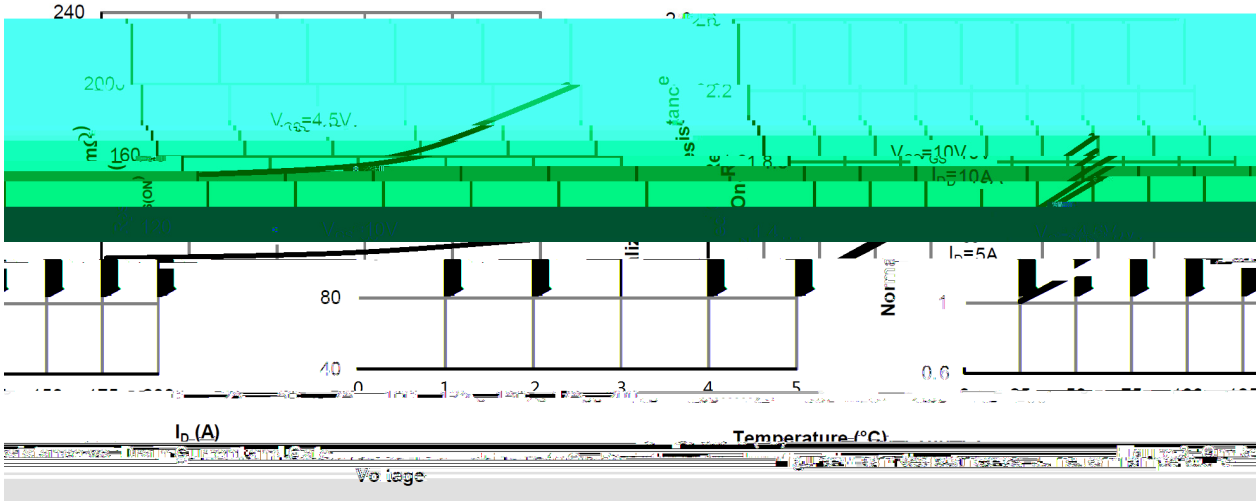
v ̈Ω Parameter	ϒ N Symbol	̈Ω Ö Rating	D Ч Unit
Drain-Source Voltage	V_{DS}	100	V
Drain Current	I_D(Tc=25)	9.0	A
Drain Current - Pulsed	I_{DM}	25	A
Gate-Source Voltage	V_{GS}	±20	V
Power Dissipation	P_D(Tc=25)	20	W
Operating and Storage Temperature Range	T_J,T_{stg}	-55 to 150	ł
Junction-to-Case	R JC	6.25	ł 2 Z

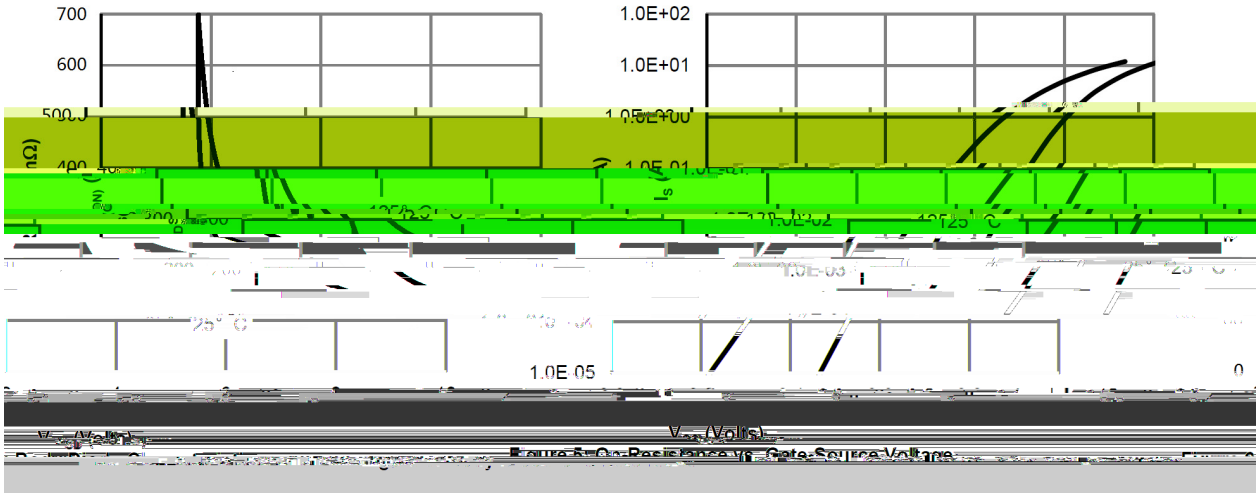
/ Electrical Characteristics(T_C=25)

v ̈Ω Parameter	ϒ N Symbol	Ш :ϒ Ţ Test Conditions	ω ņ Ö Min	Ɛ ʒ Ö Typ	ω ² Ö Max	D Ч Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250 A	100	109		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=100V V_{GS}=0V			1	A
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±20V V_{DS}=0V			±0.1	A
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250 A	1.0	1.6	3.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=5A		112	125	m
		V_{GS}=4.5V I_D=2A		155	230	m
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=1A			1.2	V
Reverse Recovery Time	t_{rr}	I_{SD}=3A, dI_{SD}/dt=100A/ s		27		ns
Reverse Recovery Charge	Q_{rr}			35		nC
Input Capacitance	C_{iss}	V_{DS}=50V V_{GS}=0V f=1.0MHz		165		pF
Output Capacitance	C_{oss}			55		
Reverse Transfer Capacitance	C_{rss}			7.5		
Gate resistance	R_g	V_{GS}=0V V_{DS}=0V f=1MHz		2.5		
Total Gate Charge	Q_g	V_{GS}=10V V_{DS}=50V I_D=3A		3.3		nC
Gate Source Charge	Q_{gs}			0.35		
Gate Drain Charge	Q_{gd}			0.87		
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=10V V_{DS}=50V I_D=3A R_G=2		13.2		ns
Turn-On Rise Time	t_r			2.2		
Turn-Off Delay Time	$t_{d(off)}$			11		
Turn-Off Fall Time	t_f			1.1		

/ Electrical Characteristic Curve



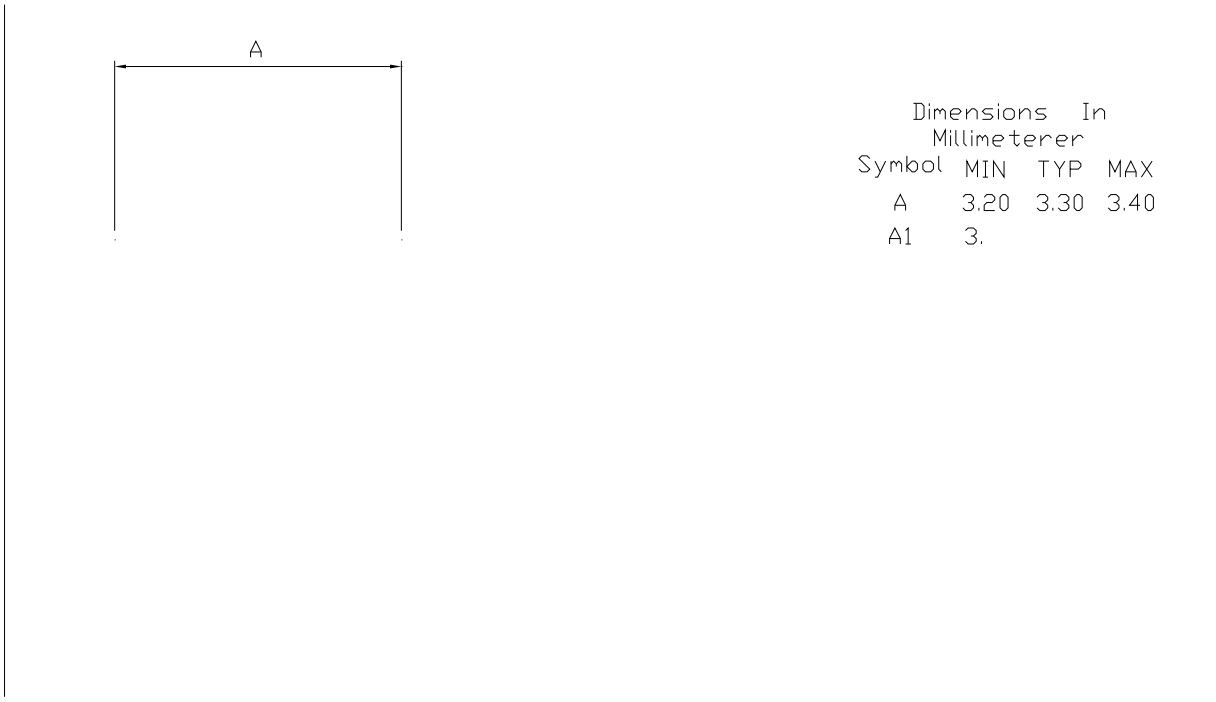




/ Package Dimensions

PDFN3X3A-8L

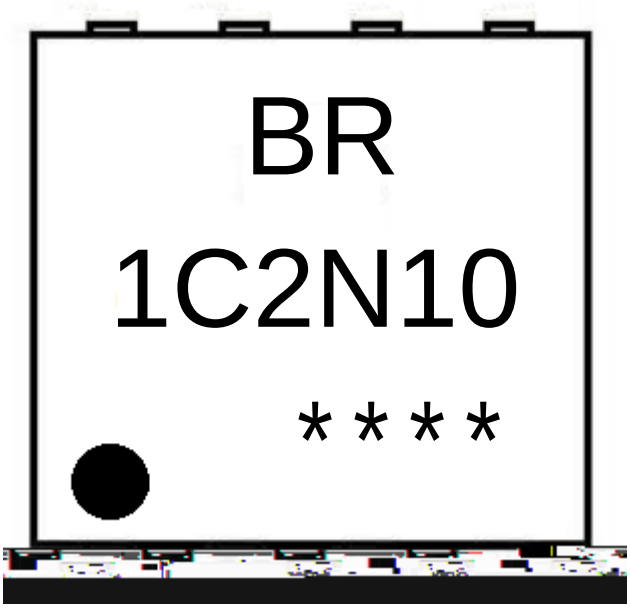
Unit:mm



Dimensions In Millimeterer			
Symbol	MIN	TYP	MAX
A	3.20	3.30	3.40
A1	3.		

Rev.00 202011

/ Marking Instructions



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BR χ	ꟻ ꞃ ᴎ Ꮆ
1C2N10 χ	ꟻ ȝ ᴺ Ꮆ
---- χ	ꟻ ꟷ ꞙ ᵰ ᴺ Ꮆ ꟷ ₹ ꟷ ꞙ ᵰ ᴺ Ψ ᖘ

Note:

BR:	Company Code
1C2N10:	Product Type Code
****:	Lot No. Code, code change with Lot No.

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

ب ˝ χ

1 Ĺ ♬ □ ỷ 150 Ḱ 180 ɬ ı `H ڑ 60 Ḱ 90sec;

2 Š Ө □ ỷ 245 ° 5 ɬ ı `H ڑ 'Y ʌ ʬ 5 ° 0.5sec;

3 ì ˙ ϒ ˛ ɔ ﷺ ỷ ʬ 2 Ḱ 10 ɬ /sec.

Note:

1.Preheating:150~180 ɬ , Time:60~90sec.

2.Peak Temp.:245 ° 5 ɬ , Duration:5 ° 0.5sec.

3. Cooling Speed: 2~10 ɬ /sec.

/ Resistance to Soldering Heat Test Conditions

□ ỷ χ 260 ° 5 ɬ `H ڑ χ 10 ° 1 sec. Temp.:260 ° 5 ɬ Time:10 ° 1 sec

/ Packaging SPEC.

ɔ ` ɣ Ł / REEL

Package Type	Units					Dimension		(unit mm³)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
PDFN 3×3A-8L	5,000	2	10,000	6	60,000	13 ×12	360×360×50	380×335×366

/ Notices

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