

BRCS1C2N10YB

Rev.B Aug.-2026

DATA SHEET

/ Descriptions

SGIQ 6Ö6D0;0 M M E Q S P R V J Q Z 1

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

/ Features

$V_{DS} (V) = 100V$ $I_D = 9.0A$ ($V_{GS} = \pm 20V$)

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

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

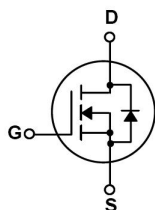
η f β KI Surgxfwl

/ Applications

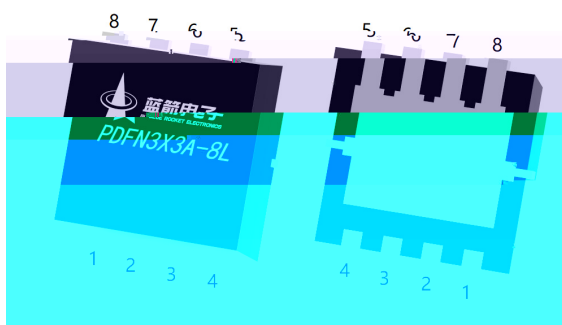
GF2GF = DF2GF 6 "Ö H A ÖÖJ a l "Ö L i 3 = T Ÿ A ÖÖJ Ö GF2GF 6 "Ö H

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	G
4	D
5	D
6	D
7	D
8	D

/ Marking

Ö M 1 Ö " See Marking Instructions.

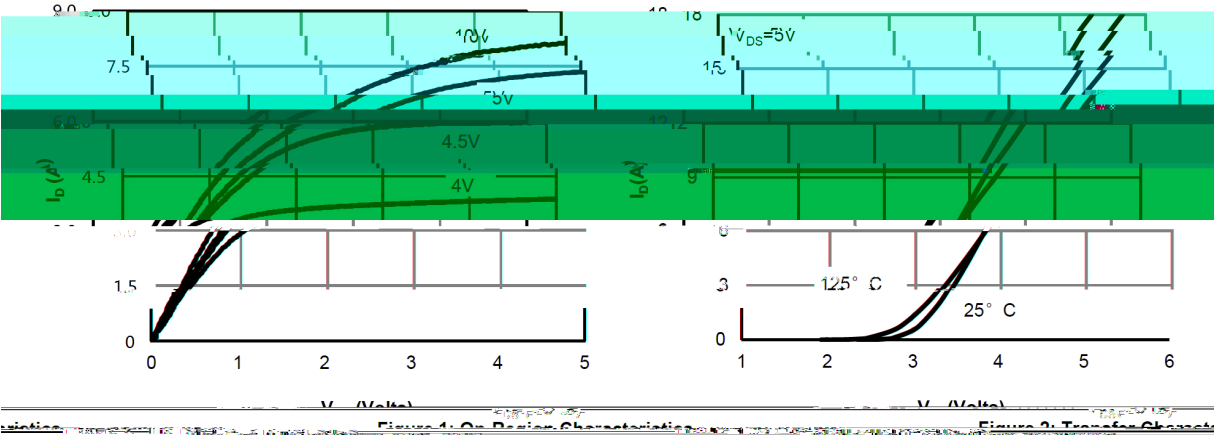
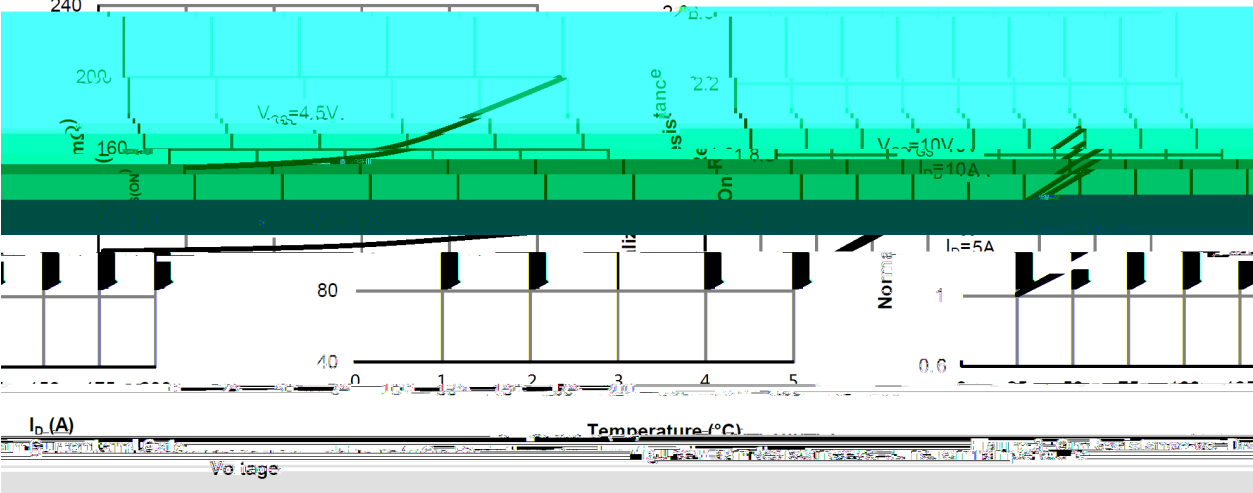
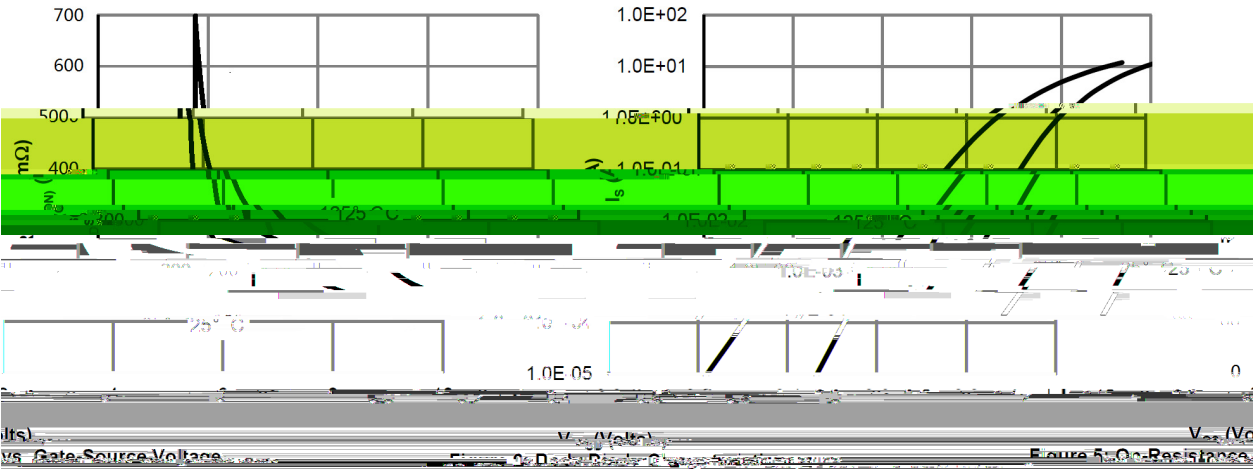
/ Absolute Maximum Ratings($T_c=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	100	V
Drain Current	$I_D(T_c=25^\circ\text{C})$	9.0	A
Drain Current - Pulsed	I_{DM}	25	A
Gate-Source Voltage	V_{GS}	± 20	V
Power Dissipation	$P_D(T_c=25^\circ\text{C})$	20	W
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to 150	$^\circ\text{C}$
Junction-to-Case	R_{JC}	6.25	$^\circ\text{C/W}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=250\mu A$	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}	$V_{GS}=\pm 20V, V_{DS}=0V$			± 0.1	A
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	1.0	1.6	3.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V, I_D=5A$		112	125	m Ω
		$V_{GS}=4.5V, I_D=2A$		155	230	m Ω
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V, I_S=1A$			1.2	V
Reverse Recovery Time	t_{rr}	$I_{SD}=3A, di_{SD}/dt=100A/\mu s$		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	$t_{d(on)}$	$V_{GS}=10V, V_{DS}=50V, I_D=3A, R_G=2\Omega$		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		

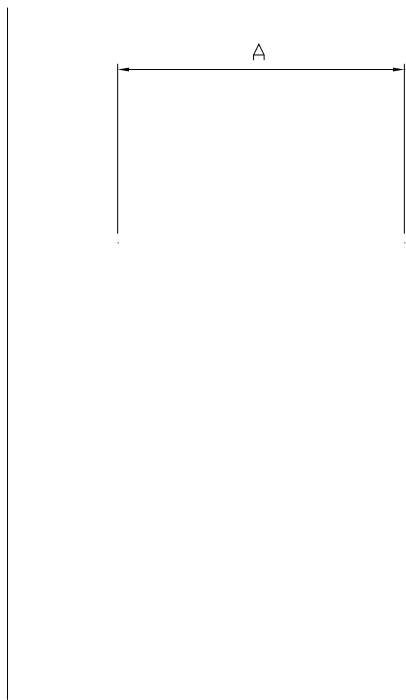
/ Electrical Characteristic Curve



/ Package Dimensions

PDFN3X3A-8L

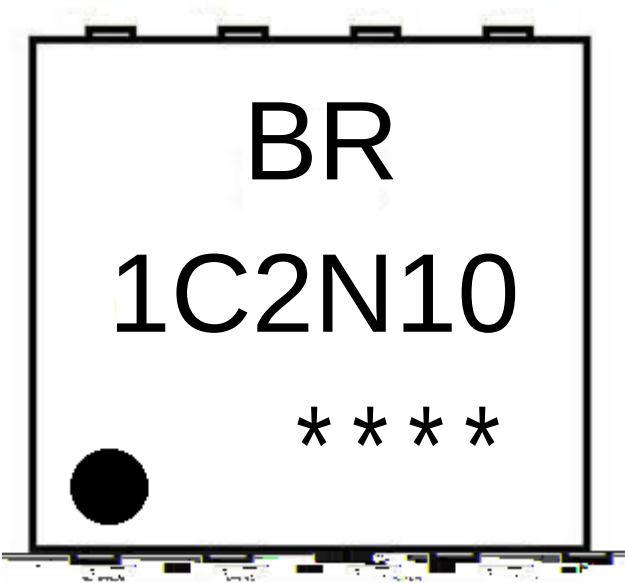
Unit:mm



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

Rev.00 202011

/ Marking Instructions



公司	λ
BR	λ 公司
1C2N10	λ 产品
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Note:

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

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

1. Preheating:150~180 ℃ , Time:60~90sec.
2. Peak Temp.:245 ℃ , Duration:5 ~ 0.5sec.
3. Cooling Speed: 2~10 ℃ /sec.
- Note:

/ Resistance to Soldering Heat Test Conditions

□ ℃ × 260 ℃ 5 ℃ ℃ × 10 ℃ 1 sec. Temp.:260 ℃ 5 ℃ Time:10 ℃ 1 sec

/ Packaging SPEC.

□ ℃ × 260 ℃ 5 ℃ ℃ × 10 ℃ 1 sec. Temp.:260 ℃ 5 ℃ Time:10 ℃ 1 sec

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

/ Notices

□ ℃ × 260 ℃ 5 ℃ ℃ × 10 ℃ 1 sec. Temp.:260 ℃ 5 ℃ Time:10 ℃ 1 sec