

BRCS120N03YBQ

Rev.A Dec.-2023



DATA SHEET

SGIQ6Ö6D0;0 M M E Q S P R V J ǒ Z 1

N-Channel Enhancement Mode Field Effect Transistor in a PDFN3Ö3A-8L Plastic Package.

$V_{DS} (V) = 30V$

$I_D = 20 A (V_{GS} = 20V)$

$R_{DS(ON)}@10V \ 13mR(Typ.11mR)$

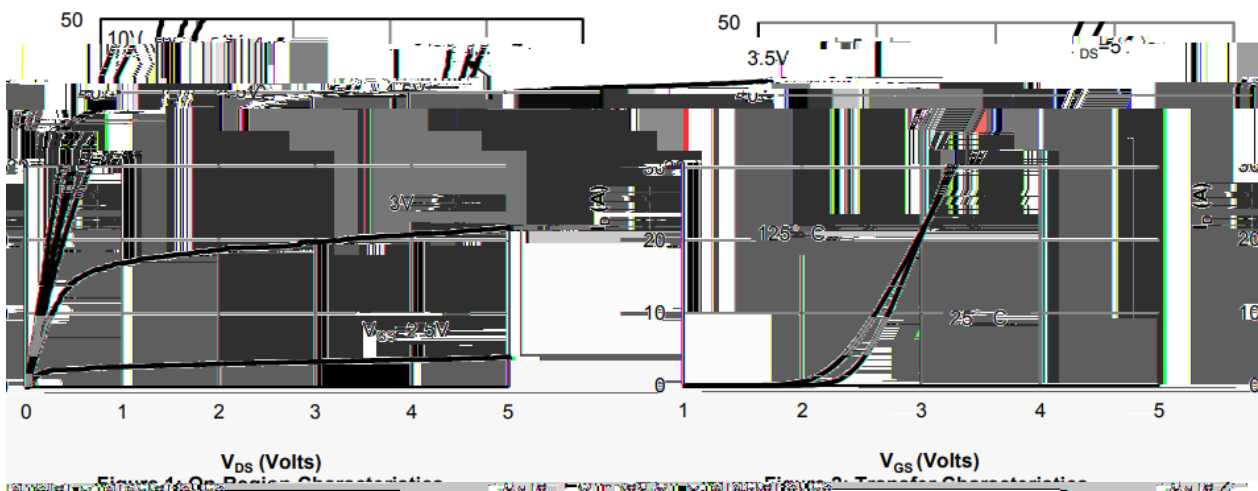
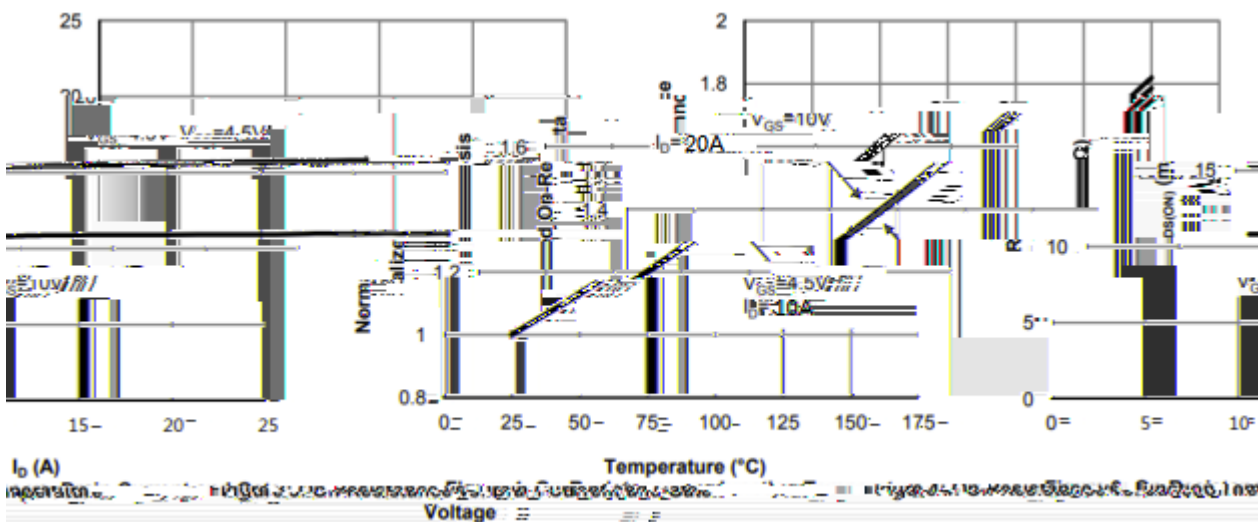
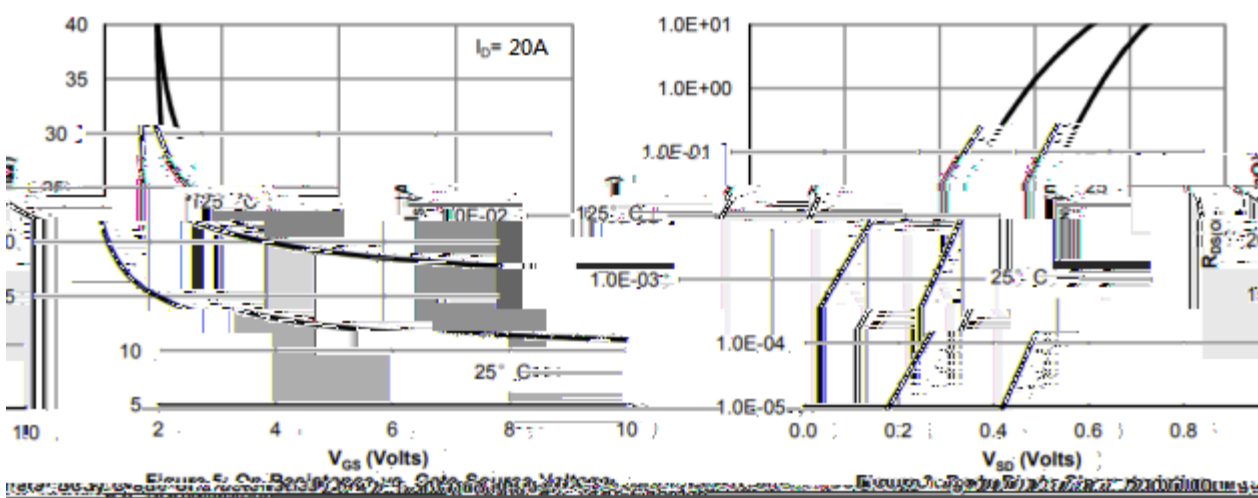
ǒ T DHF0T434 %ǒ ǒ I 、 ǒ L ǒ I ǒ f β Qualified to AEC-Q101 Standards for High Reliability, HF Product.

ǒǒ ǒ I ' GF2GF "A ≡

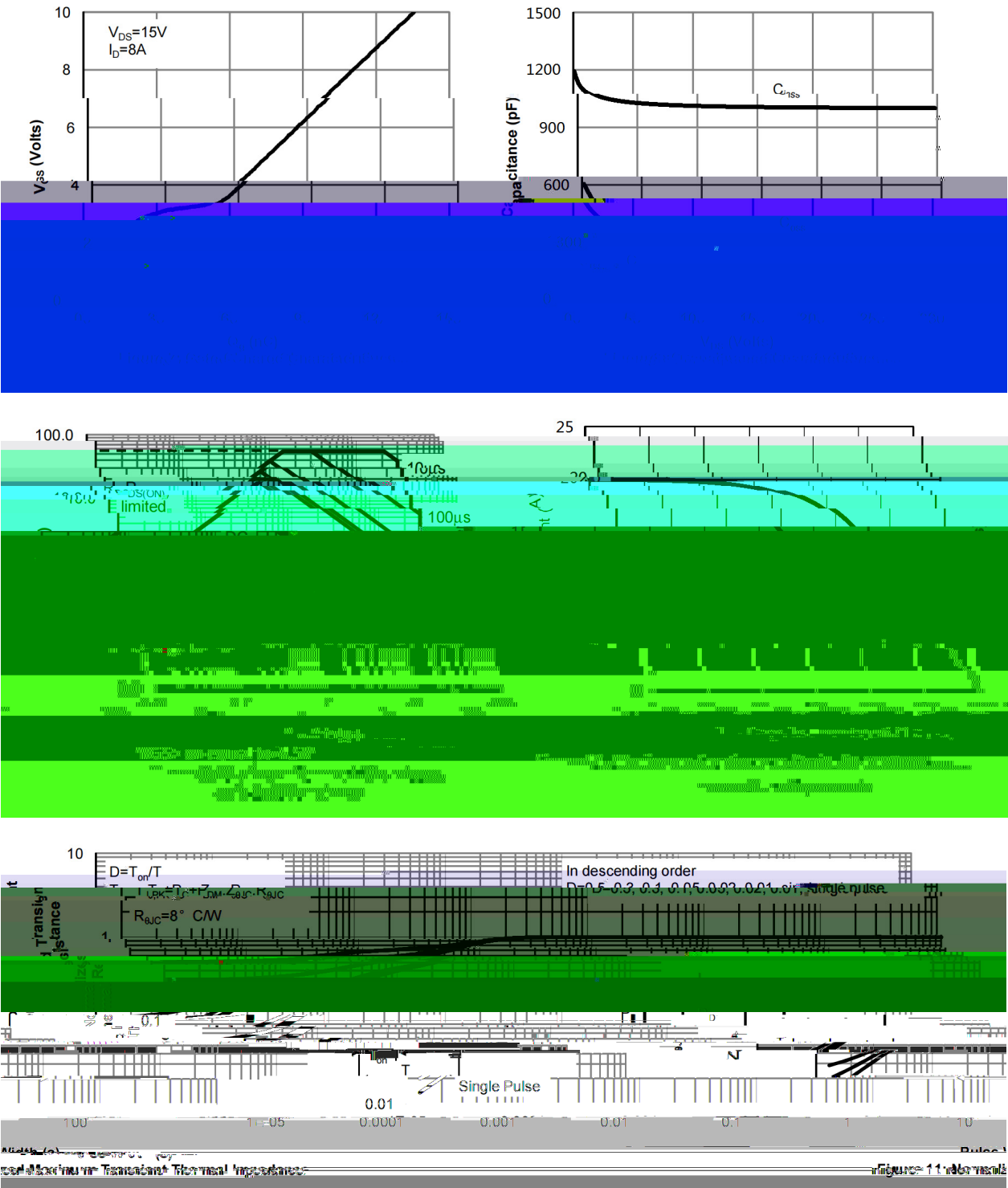
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	30	V
Drain Current		$I_D(T_c=25^\circ\text{C})$	20	A
Drain Current - Pulsed		I_{DM}	55	A
Gate-Source Voltage		V_{GS}	± 20	V
Single Pulsed Avalanche Energy		E_{AS}	199	mJ
Avalanche Current		I_{AS}	12.9	A
Power Dissipation		$P_D(T_c=25^\circ\text{C})$	15.5	W
Operating and Storage Temperature Range		T_J, T_{stg}	-55 to 150	
Junction-to-Ambient	$t \leq 10$	$R_{\theta JA}$	30	/W
Junction-to-Ambient	Steady-State		60	
Junction-to-Case	Steady-State	$R_{\theta JC}$	8	

/ Electrical Characteristic Curve



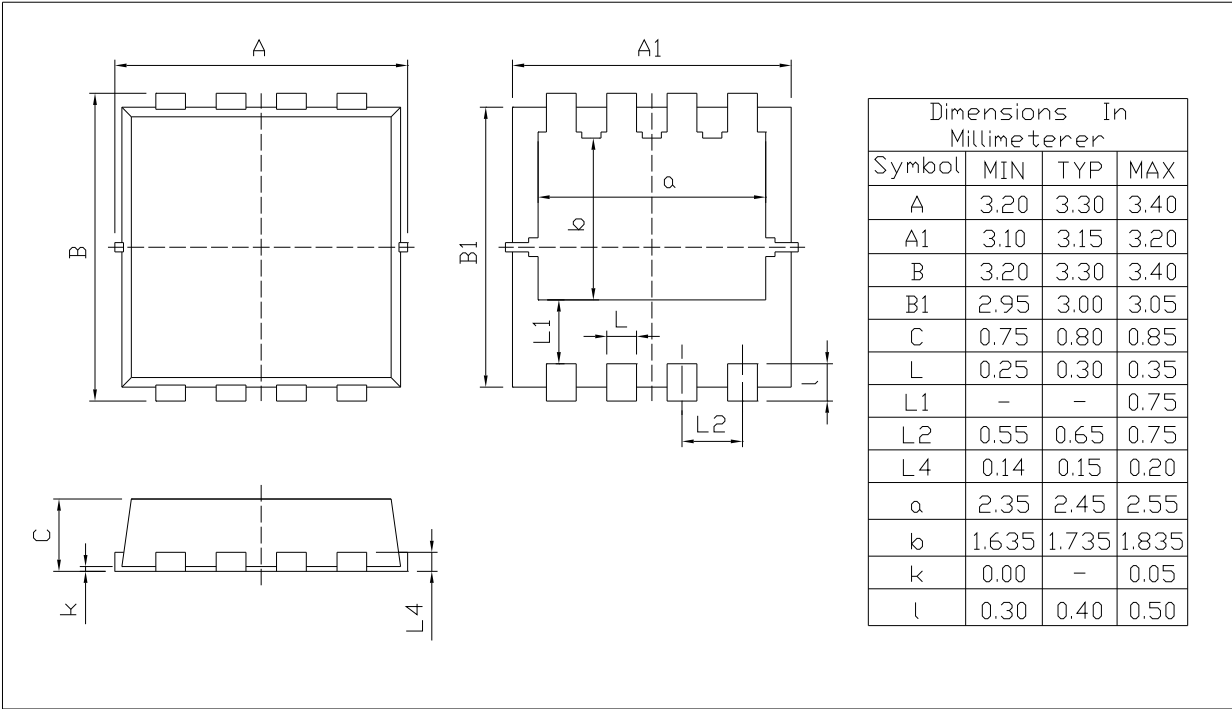
/ Electrical Characteristic Curve



/ Package Dimensions

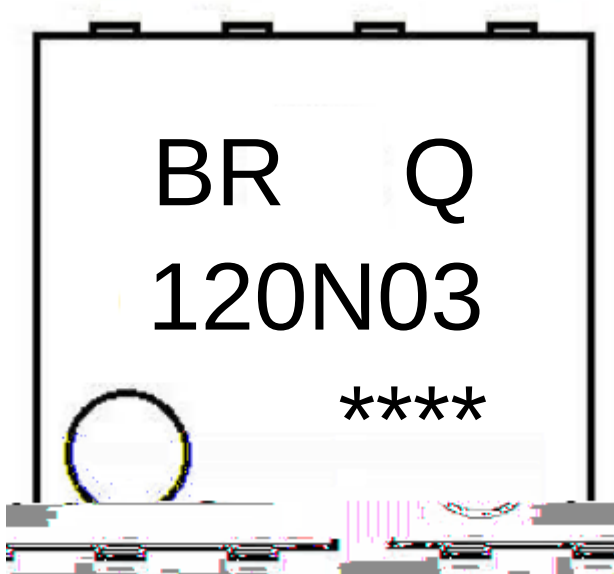
PDFN3X3A-8L

Unit:mm



Rev.00 202011

/ Marking Instructions



公司代码	公司代码
BR	公司代码
Q	汽车无卤产品代码
120N03	产品代码
*****	批次代码，批次代码与批次号
Note:	
BR:	Company Code
Q:	Automobile halogen-free product Code
120N03:	Product Type Code
*****:	Lot No. Code, code change with Lot No

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

- б " χ
- 1 150 ℃ 200 ℃ 60 ℃ 120sec;

2 255 ℃ 5 ℃ 5 ℃ 0.5sec;

3 2 ℃ 10 ℃ /sec.

Note:

1.Preheating:150~200 ℃ , Time:60~120sec.

2.Peak Temp.:255 ℃ 5 ℃ , Duration:5 ℃ 0.5sec.

3. Cooling Speed: 2~10 ℃ /sec.

/ Resistance to Soldering Heat Test Conditions

605 ℃ 5 ℃