

**BRCS120N06YBQ**

Rev.A Jul.-2022

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DATA SHEET

PDFN 3×3A-8L N MOS

N-Channel Enhancement Mode Field Effect Transistor in a PDFN3×3A-8L Plastic Package.

$V_{DS} (V) = 60V$

$I_D = 24 A (V_{GS} = \pm 20V)$

$R_{DS(ON)} @ 10V \leq 13mR (Typ. 11.5mR)$

AEC-Q101

HF Product.

o Qualified to AEC-Q101 Standards for High Reliability,

DC/DC

These devices are well suited for high efficiencies ~ ~ ~ ~ :

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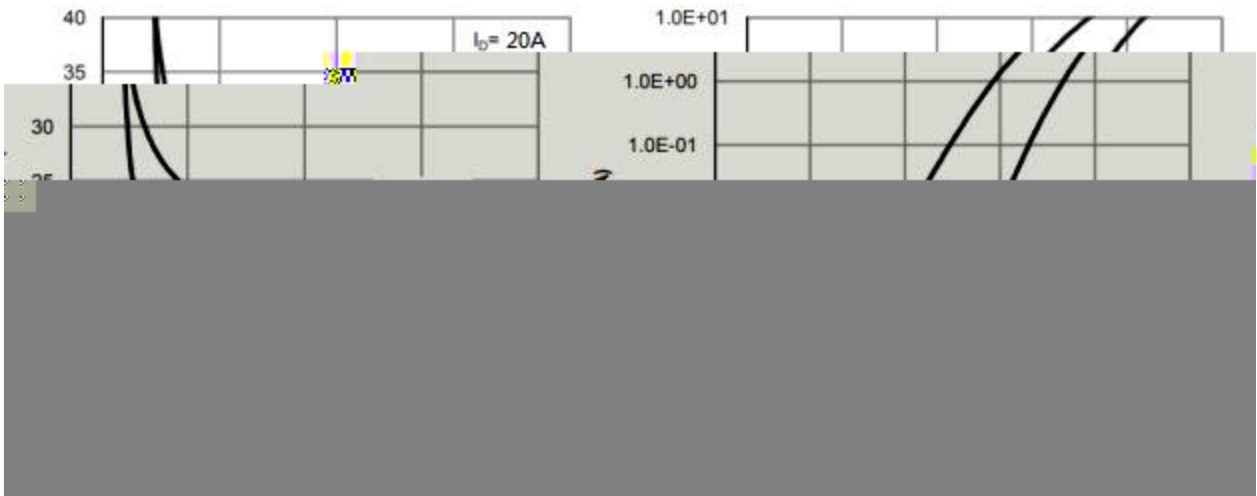
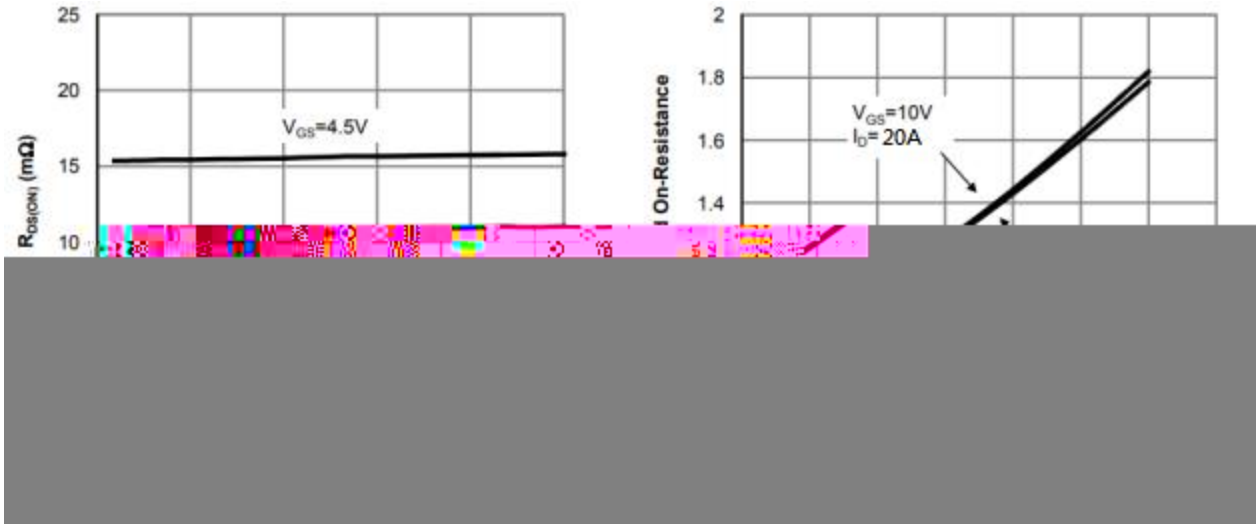
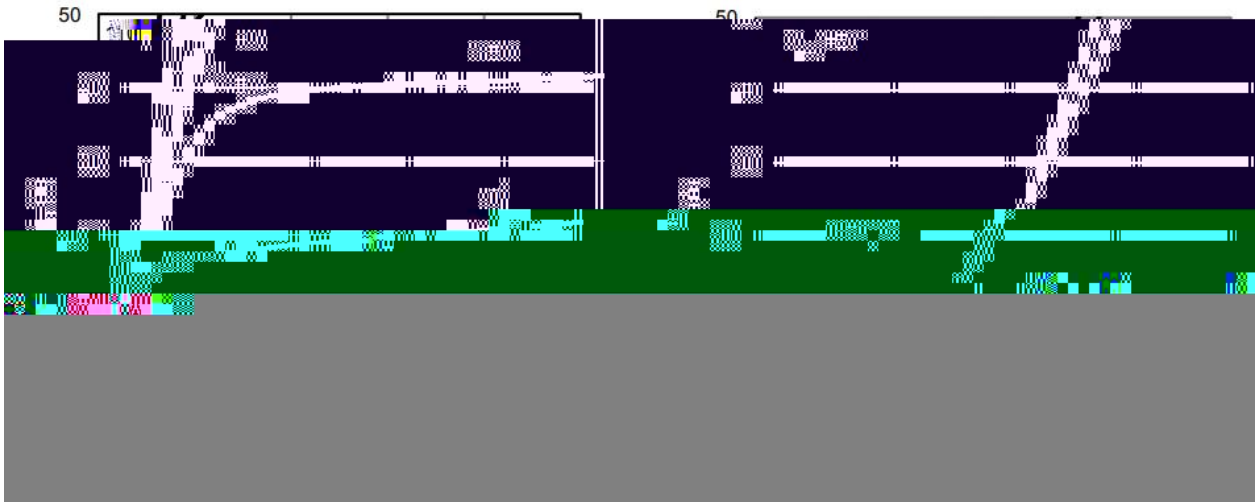
Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V$	$I_D=250\mu A$	60	64		V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=60V$	$V_{GS}=0V$			1	$\mu A$
Gate-Body Leakage Current Forward	$I_{GSS}$	$V_{GS}=\pm 20V$	$V_{DS}=0V$			$\pm 0.1$	$\mu A$
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$	$I_D=250\mu A$	1.0	1.6	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$	$I_D=20A$		11.5	13	m
		$V_{GS}=4.5V$	$I_D=10A$		15.5	18	m
Drain-Source Diode Forward Voltage	$V_{SD}$	$V_{GS}=0V$	$I_S=1A$			1.2	V
Input Capacitance	$C_{iss}$	$V_{DS}=25V$ $f=1.0MHz$	$V_{GS}=0V$		1010		pF
Output Capacitance	$C_{oss}$				250		
Reverse Transfer Capacitance	$C_{rss}$				280		
Gate resistance	$R_g$	$V_{GS}=0V$ $f=1MHz$	$V_{DS}=0V$		1.5		
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10V$ $I_D=13A$	$V_{DS}=30V$		13.5		nC
Total Gate Charge	$Q_{g(4.5V)}$				6.5		
Gate Source Charge	$Q_{gs}$				2.5		
Gate Drain Charge	$Q_{gd}$				3.0		

Turn-On DeR

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/ Electrical Characteristic Curve





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**/ Marking Instructions**

**BR Q**  
**120N06**

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120N06

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Note:

BR: Company Code

Q: Automobile halogen-free product Code

120N06: Product Type Code

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

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