

BRCS080N03YBQ

Rev.A Dec.-2024

DATA SHEET

BRCS080N03YBQ

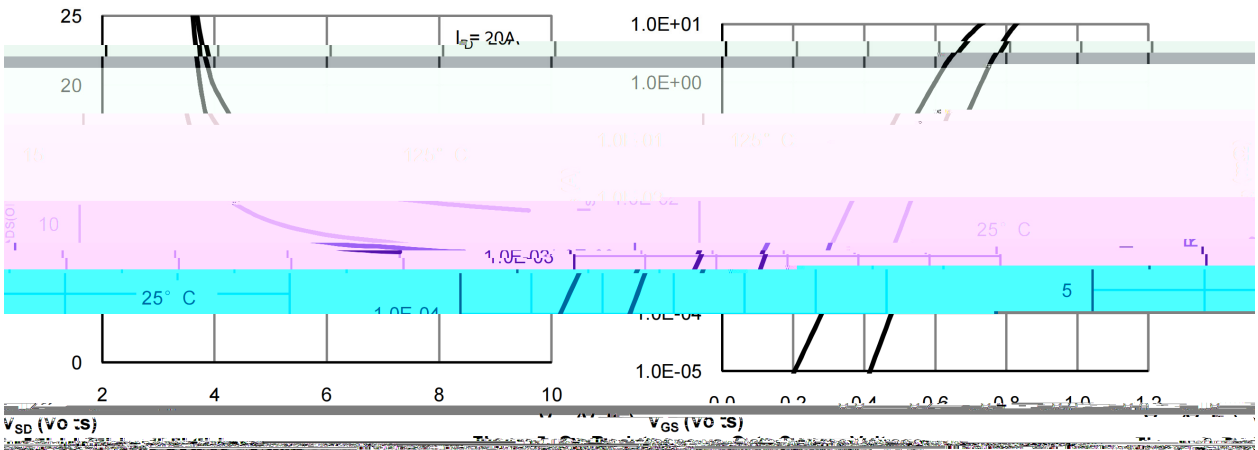
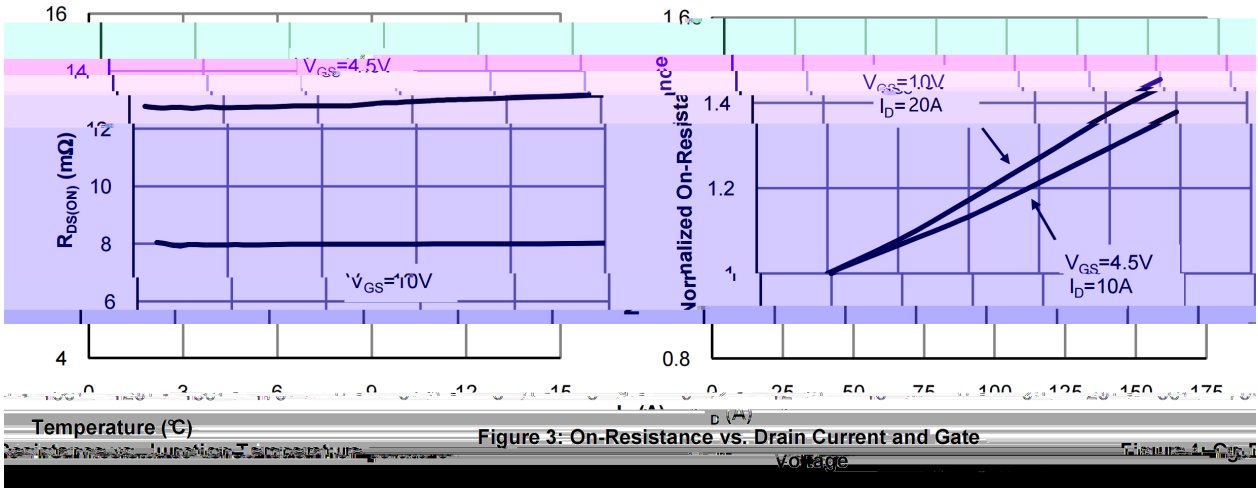
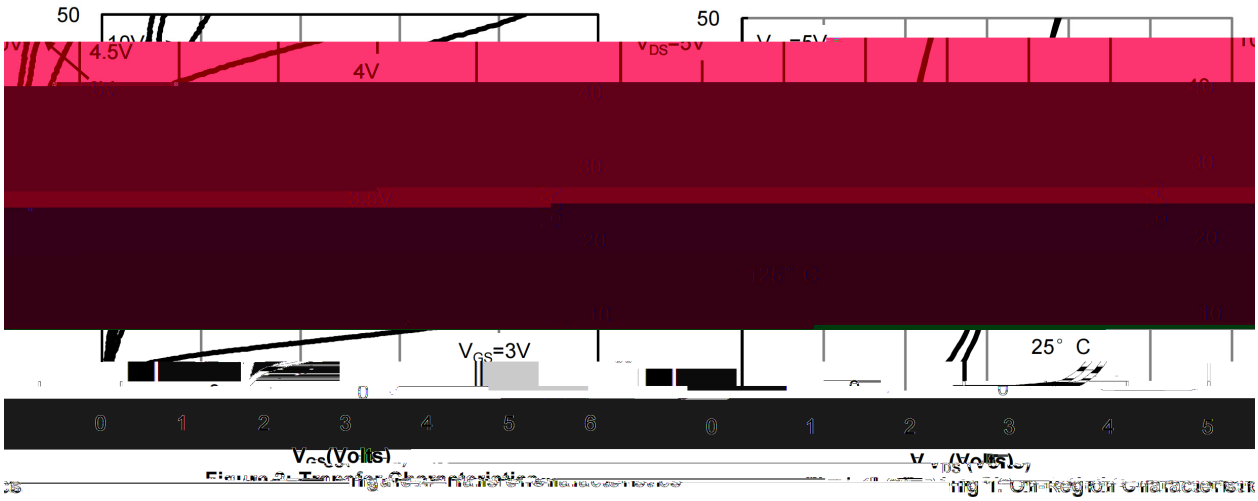
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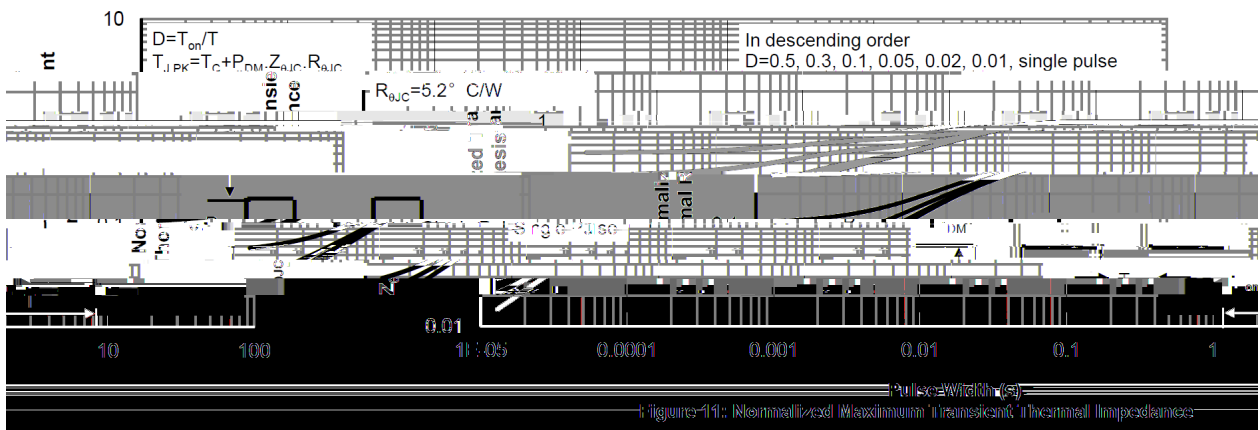
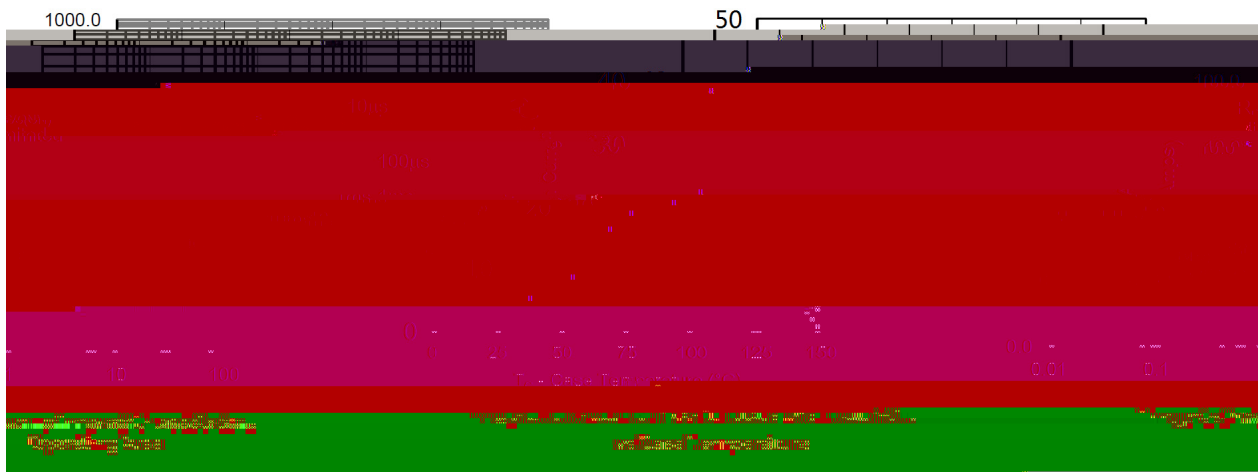
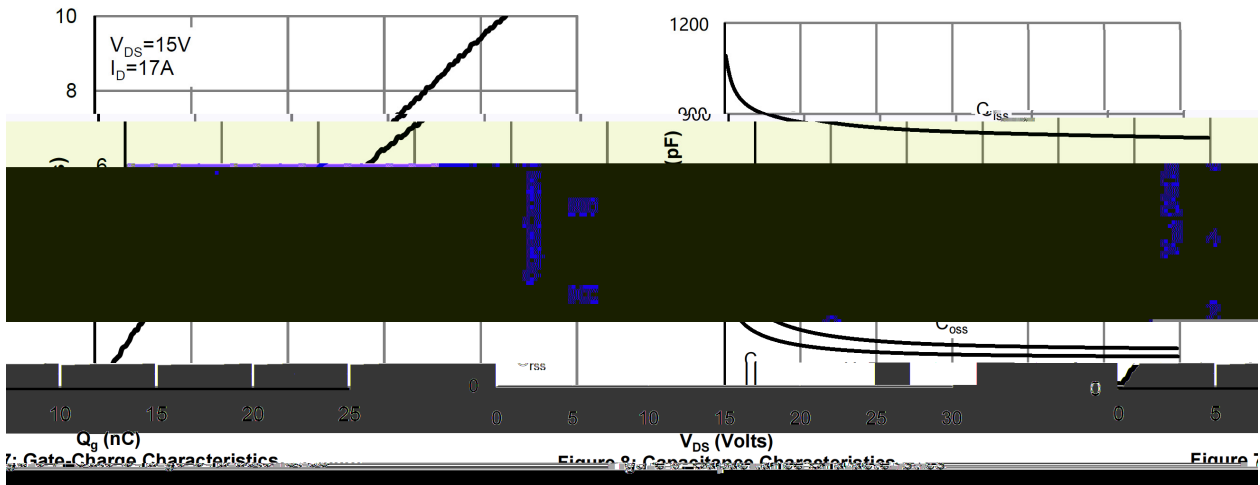
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$	$I_D=250\mu A$	30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=30V$	$V_{GS}=0V$			1	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$	$V_{DS}=0V$			± 0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$	$I_D=250\mu A$	1.0	1.9	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$	$I_D=20A$		8	9	m
		$V_{GS}=4.5V$	$I_D=10A$		12	15	m
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$	$I_S=1A$			1.2	V
Input Capacitance	C_{iss}	$V_{DS}=15V$ $f=1.0MHz$	$V_{GS}=0V$		845		pF
Output Capacitance	C_{oss}				135		
Reverse Transfer Capacitance	C_{rss}				105		
Gate resistance	R_g	$V_{GS}=0V$ $f=1MHz$	$V_{DS}=0V$		2.9		
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10V$ $I_D=17A$	$V_{DS}=15V$		22		nC
Total Gate Charge	$Q_{g(4.5V)}$				10		
Gate Source Charge	Q_{gs}				4.7		
Gate Drain Charge	Q_{gd}				4		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $R_L=0.75$	$V_{DS}=15V$ $R_{GEN}=3$		6.5		ns
Turn-On Rise Time	t_r				2.5		
Turn-Off Delay Time	$t_{d(off)}$				22.5		
Turn-Off Fall Time	t_f				3		

/ Electrical Characteristic Curve



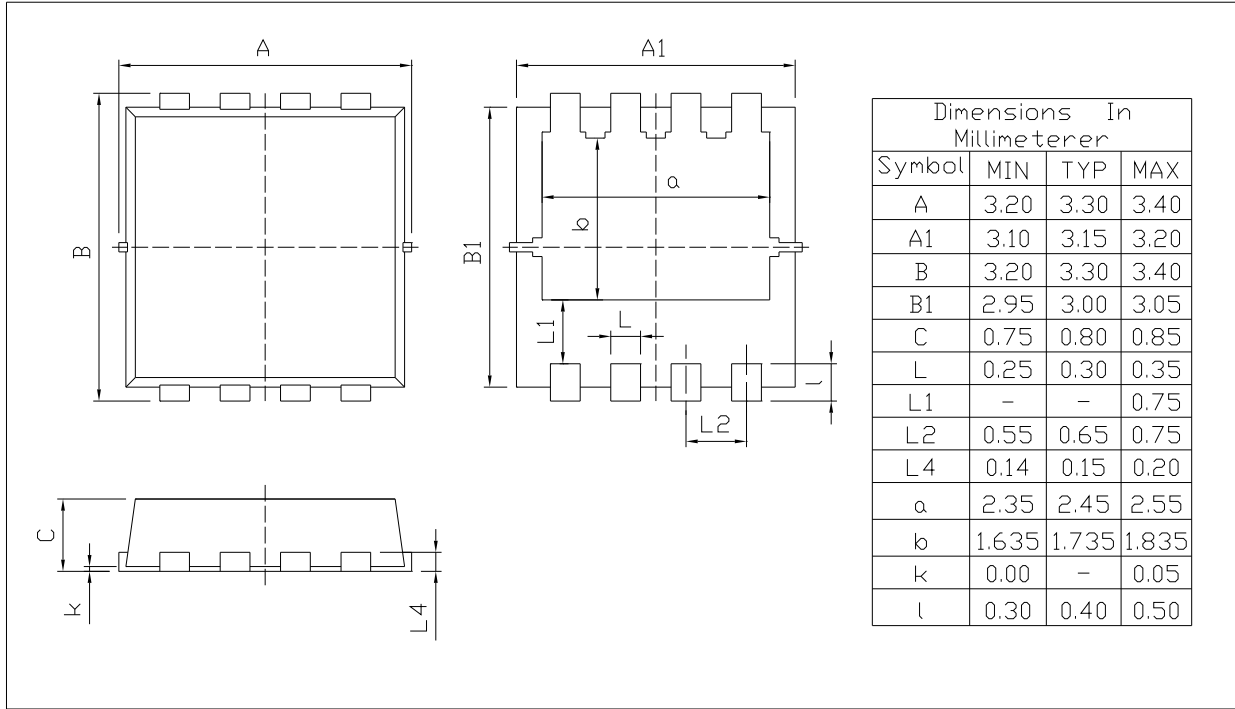
/ Electrical Characteristic Curve



/ Package Dimensions

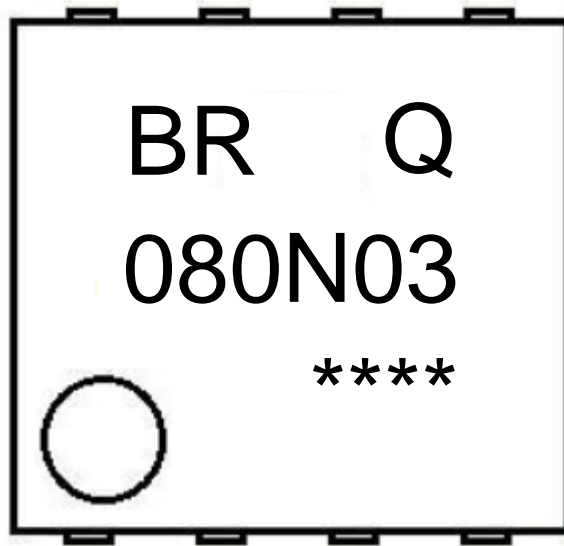
PDFN3X3A-8L

Unit:mm



Rev.00 202011

/ Marking Instructions



BR

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080N03

Note:

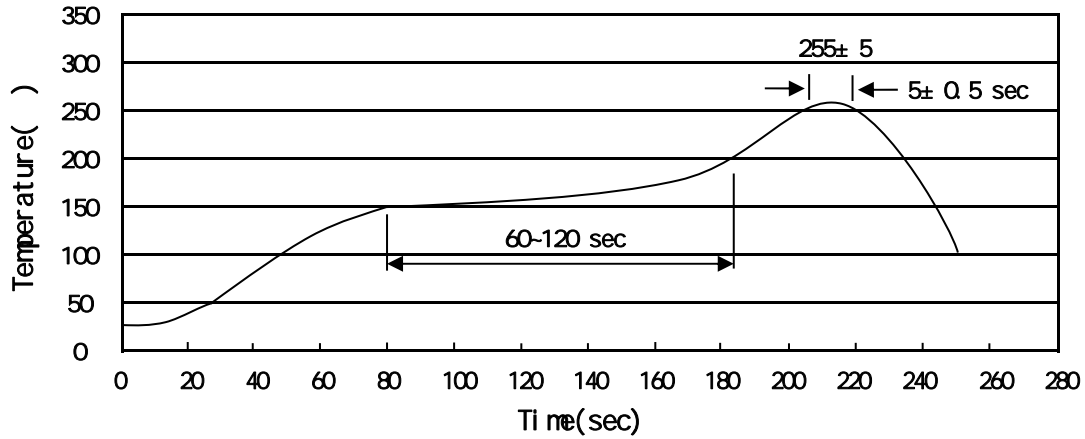
BR: Company Code

Q: Automobile halogen-free product Code

080N03: Product Type Code

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

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Note:

- 1 150 200 60 120sec; 1.Preheating:150~200 , Time:60~120sec.
- 2 255±5 5±0.5sec; 2.Peak Temp.:255±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
PDFN3x3A-8L	5,000	2	10,000	6	60,000	13 x12	360x360x50	380x335x366

/ Notices