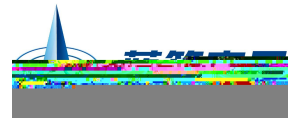


/ Revised record

A	2020.05.27	All	BRCS200N04DSC AOS-AONR32320C		
B	2021-6-9	1			

BRCS200N04ZB

Rev.B Jun.-2021



DATA SHEET

DFN 3*3A-8L 塑封封装 N 沟道 MOS 场效应管。

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

$V_{DS} (V) = 40V$

$I_D = 12 A (V_{GS} = \pm 20V)$

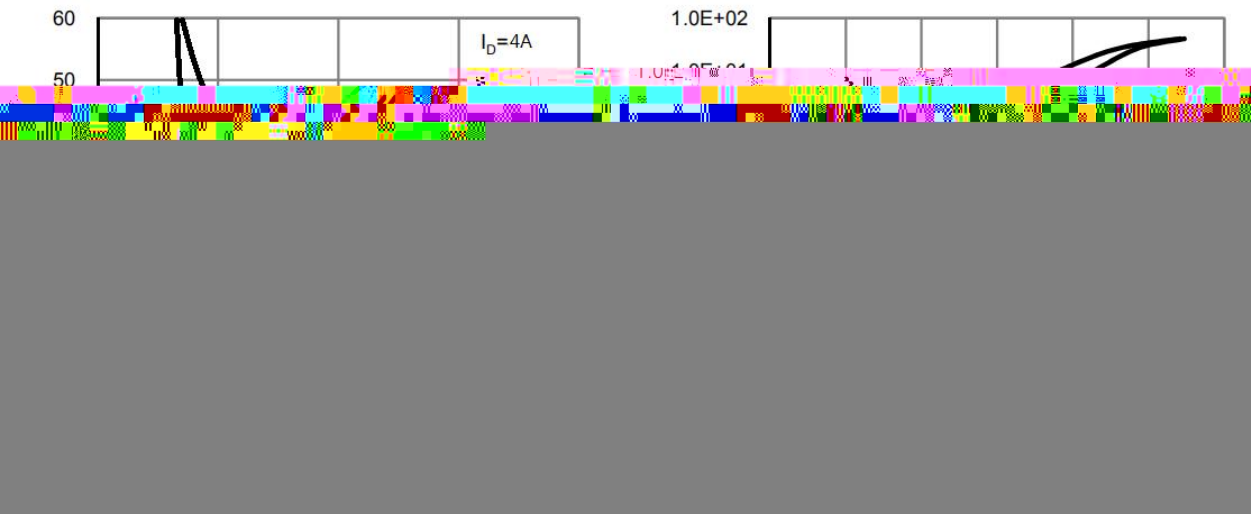
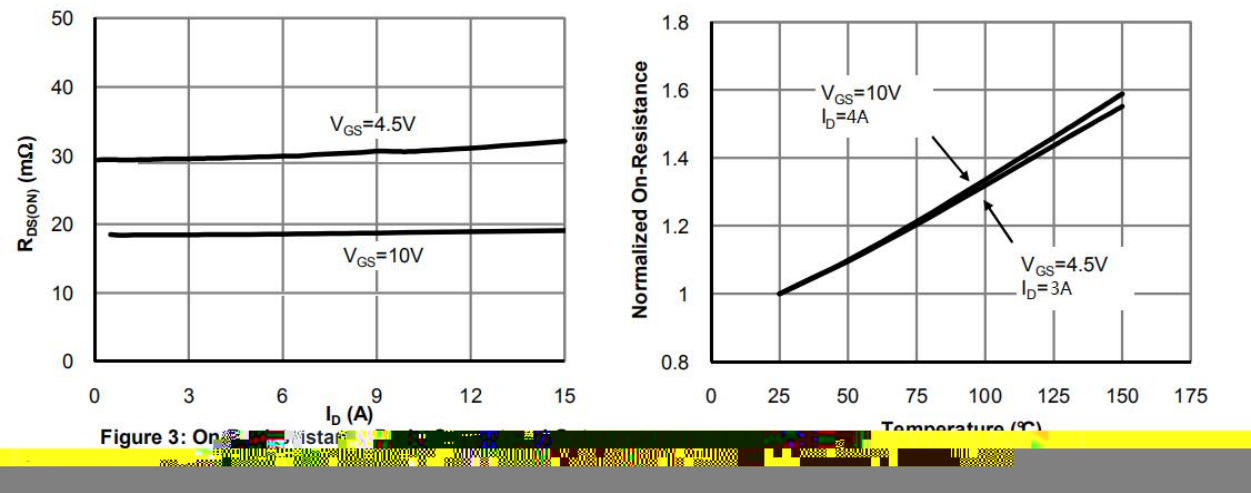
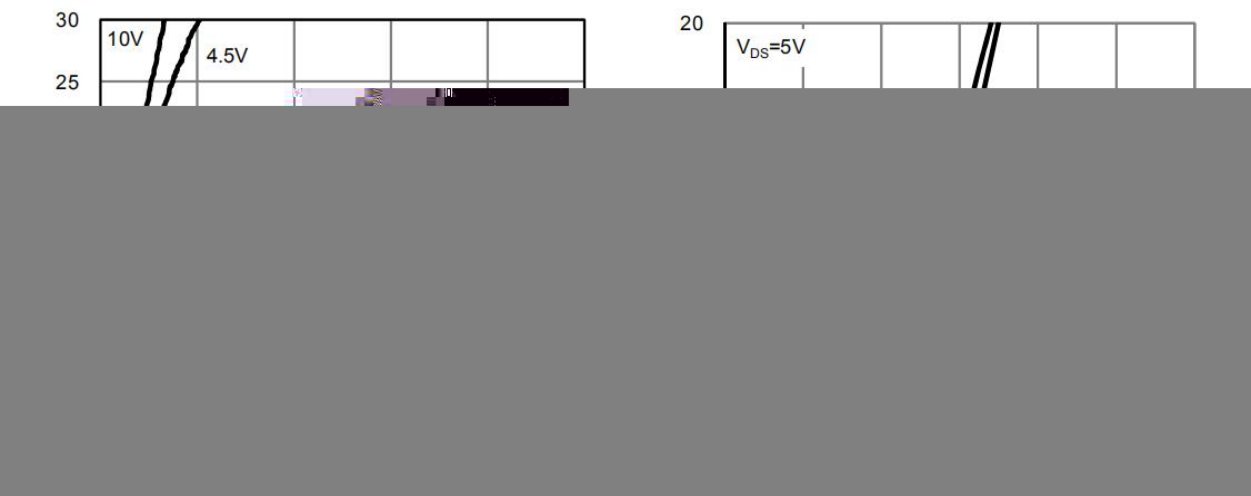
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Drain-Source Voltage	V_{DSS}	40	V
Drain Current	$I_D(T_c=25^{\circ}\text{C})$	12	A
Gate-Source Voltage	V_{GS}	± 20	V
Avalanche Current	I_{AS}	11.7	A
Avalanche energy(L=0.5mH)	E_{AS}	54.8	mJ
Power Dissipation	$P_D(T_c=25^{\circ}\text{C})$	11	W
Junction Temperature Range	T_J	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55~150	$^{\circ}\text{C}$
Maximum Junction-to-Ambient	$t \leq 10\text{s}$	$R_{\theta JA}$	40
	Steady-State	$R_{\theta JA}$	75
Maximum Junction-to-Case	Steady-State	$R_{\theta JC}$	11

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0\text{V}$ $I_D=250\mu\text{A}$	40	45		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=40\text{V}$ $V_{GS}=0\text{V}$			1.0	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20\text{V}$ $V_{DS}=0\text{V}$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu\text{A}$	1.0	1.7	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10\text{V}$ $I_D=4\text{A}$		19.9	22	m Ω

/ Electrical Characteristics(Ta=25)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Input Capacitance	C_{iss}	$V_{DS}=10V$ $V_{GS}=0V$ $f=1.0MHz$		880		pF
Output Capacitance	C_{oss}			790		
Reverse Transfer Capacitance	C_{rss}			260		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=20V$ $R_{GEN}=3\Omega$ $R_L=2.5\Omega$		4		ns
Turn-On Rise Time	t_r			3		
Turn-Off Delay Time	$t_{d(off)}$			15		
Turn-Off Fall Time	t_f			2		
Total Gate Charge	$Q_g(10V)$	$V_{GS}=10V$ $V_{DS}=20V$ $I_D=8A$		6.5		nC
Total Gate Charge	$Q_g(4.5V)$			3		
Gate-Source Charge	Q_{gs}			1.2		
Gate-Drain Charge	Q_{gd}			1,1		

/ Electrical Characteristic Curve



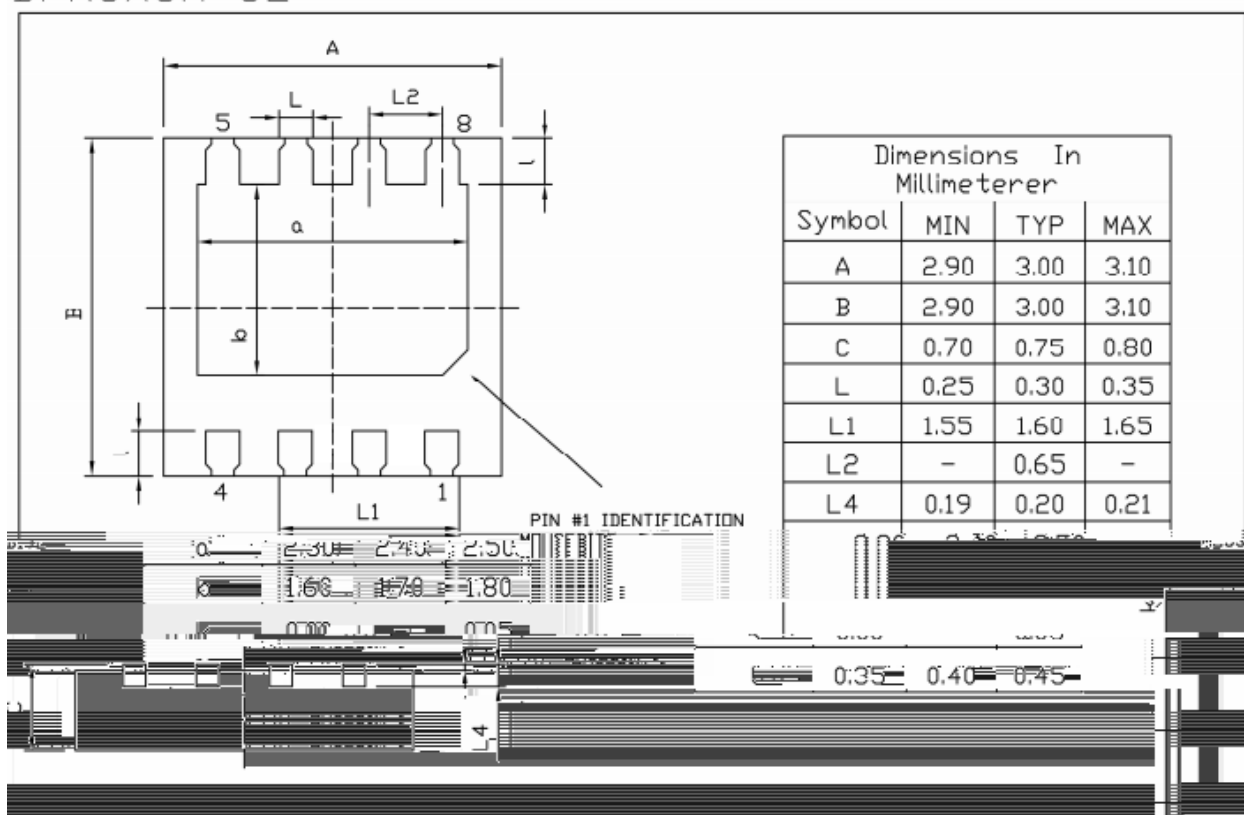
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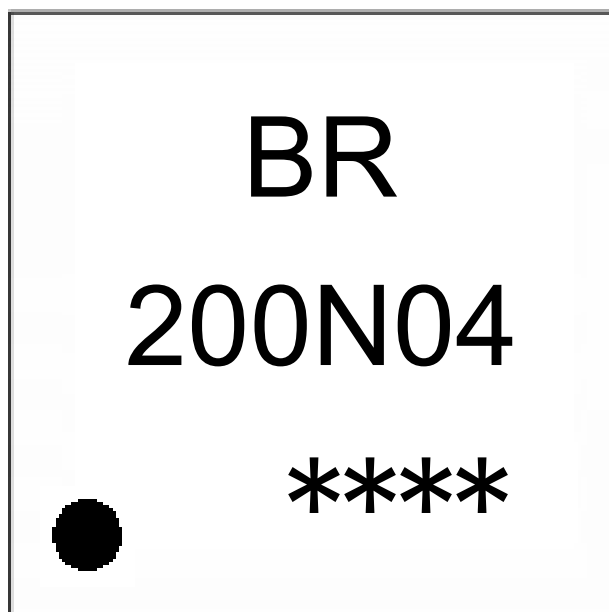
/ Package Dimensions

DFN3X3A-8L

Unit:mm



/ Marking Instructions



说明：

BR： 为公司代码

200N04： 为型号代码

****： 为生产批号代码，随生产批号变化。

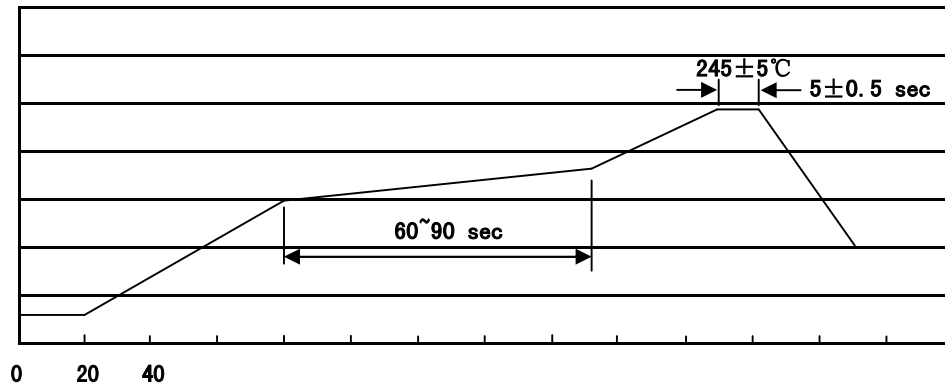
Note:

BR: Company Code.

200N04: Product Type

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

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



Note:

- | | | | |
|---|---------|-----------|---|
| 1 | 150 180 | 60 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | 5±0.5sec; | 2.Peak Temp.:245±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°C Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
DFN 3*3A-8L	5,000	2	10,000	6	60,000	13" ×12	360×360×50	380×335×366

/ Notices