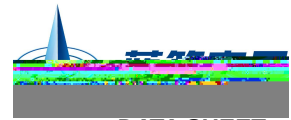


BRCS070N08SRA

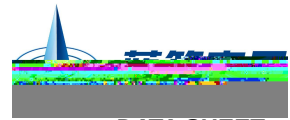
Rev.A Dec.-2021



A	2021.12.30	All	AOS-AOT288L() & AOS-AOT66920L()		

BRCS070N08SRA

Rev.A Dec.-2021



DATA SHEET

TO-220 N

N-CHANNEL MOSFET in a TO-220 Plastic Package.

Ultra Low On-Resistance, fast switching.

PFC

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

参数 Parameter		符号 Symbol	数值 Rating	单位 Unit
Drain-Source Voltage		V _{DS}	80	V
Continuous Drain Current		I _D	46	A
Pulsed Drain Current		I _{DM}	160	A
Gate-Source Voltage		V _{GS}	± 20	V
Power Dissipation		P _D (T _c =25)	93.5	W
Avalanche energy(L=0.5mH)		E _{AS}	84	mJ
Avalanche Current(L=0.5mH)		I _{AS}	19	A
Junction and Storage Temperature Range		T _j , T _{stg}	-55 to 150	°C
Maximum Junction-to-Ambient	t ≤ 10s	R _{θJA}	15	°C/ W
	Steady-State		60	
Maximum Junction-to-Case	Steady-State	R _{θJC}	1.3	

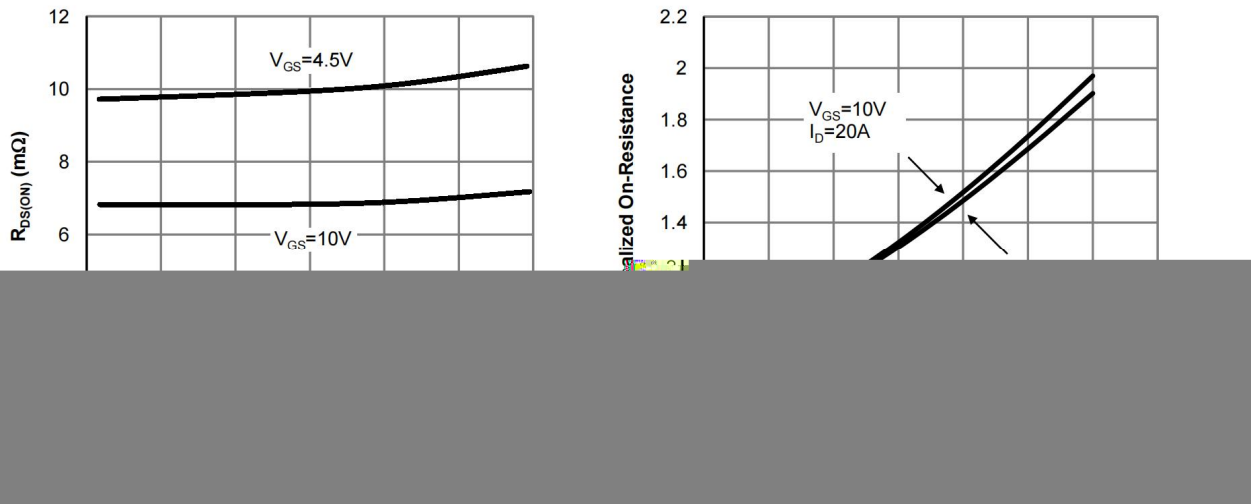
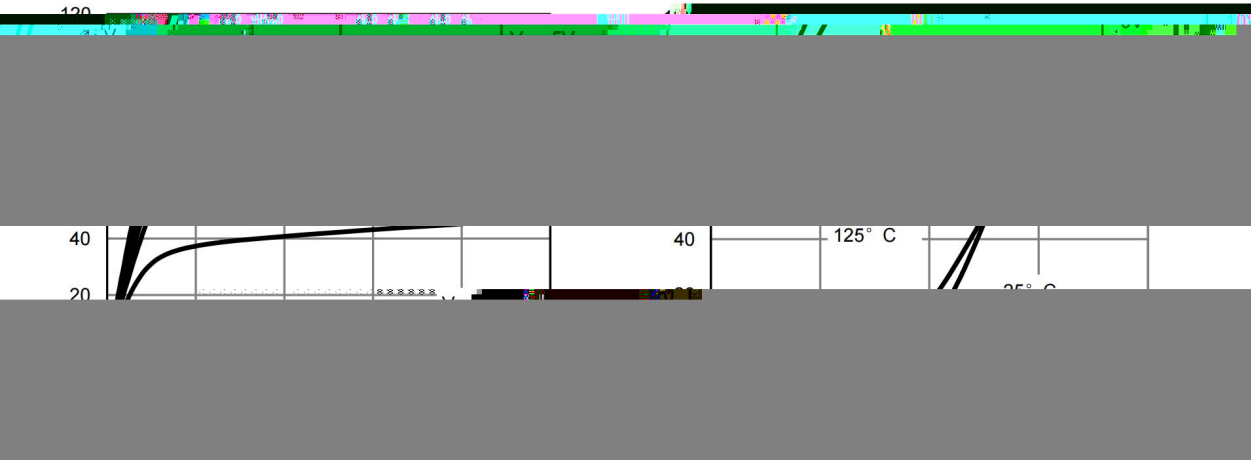
/ Electrical Characteristics($T_a=25^\circ\text{C}$)

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}	$I_D=250\mu\text{A}, V_{GS}=0\text{V}$	80	93		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=80\text{V}, V_{GS}=0\text{V}$			1	μA
Gate-Body leakage current	I_{GSS}	$V_{DS}=0\text{V}, V_{GS}=\pm 20\text{V}$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$	1.0	1.9	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10\text{V}, I_D=20\text{A}$		6.9	8	m Ω
		$V_{GS}=4.5\text{V}, I_D=10\text{A}$		9.9	13	
Diode Forward Voltage	V_{SD}	$I_S=1\text{A}, V_{GS}=0\text{V}$			1.2	V
Input Capacitance	C_{iss}	$V_{DS}=25\text{V}, V_{GS}=0\text{V}$ $f=1.0\text{MHz}$		2200		pF
Output Capacitance	C_{oss}			850		
Reverse Transfer Capacitance	C_{rss}			95		
Gate resistance	R_g	$V_{GS}=0\text{V}, V_{DS}=0\text{V}$ $f=1\text{MHz}$		3.3		Ω
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10\text{V}, V_{DS}=50\text{V},$ $I_D=20\text{A}$		35		nC
Total Gate Charge	$Q_{g(4.5V)}$			16.7		
Gate Source Charge	Q_{gs}			8		
Gate Drain Charge	Q_{gd}			5		

/ Electrical Characteristics(Ta=25)

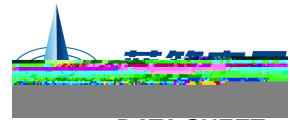
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=50V$ $R_L=2.5\Omega$ $R_{GEN}=3\Omega$		10		ns
Turn-On Rise Time	t_r			4		
Turn-Off Delay Time	$t_{d(off)}$			31		
Turn-Off Fall Time	t_f			6		

/ Electrical Characteristic Curve



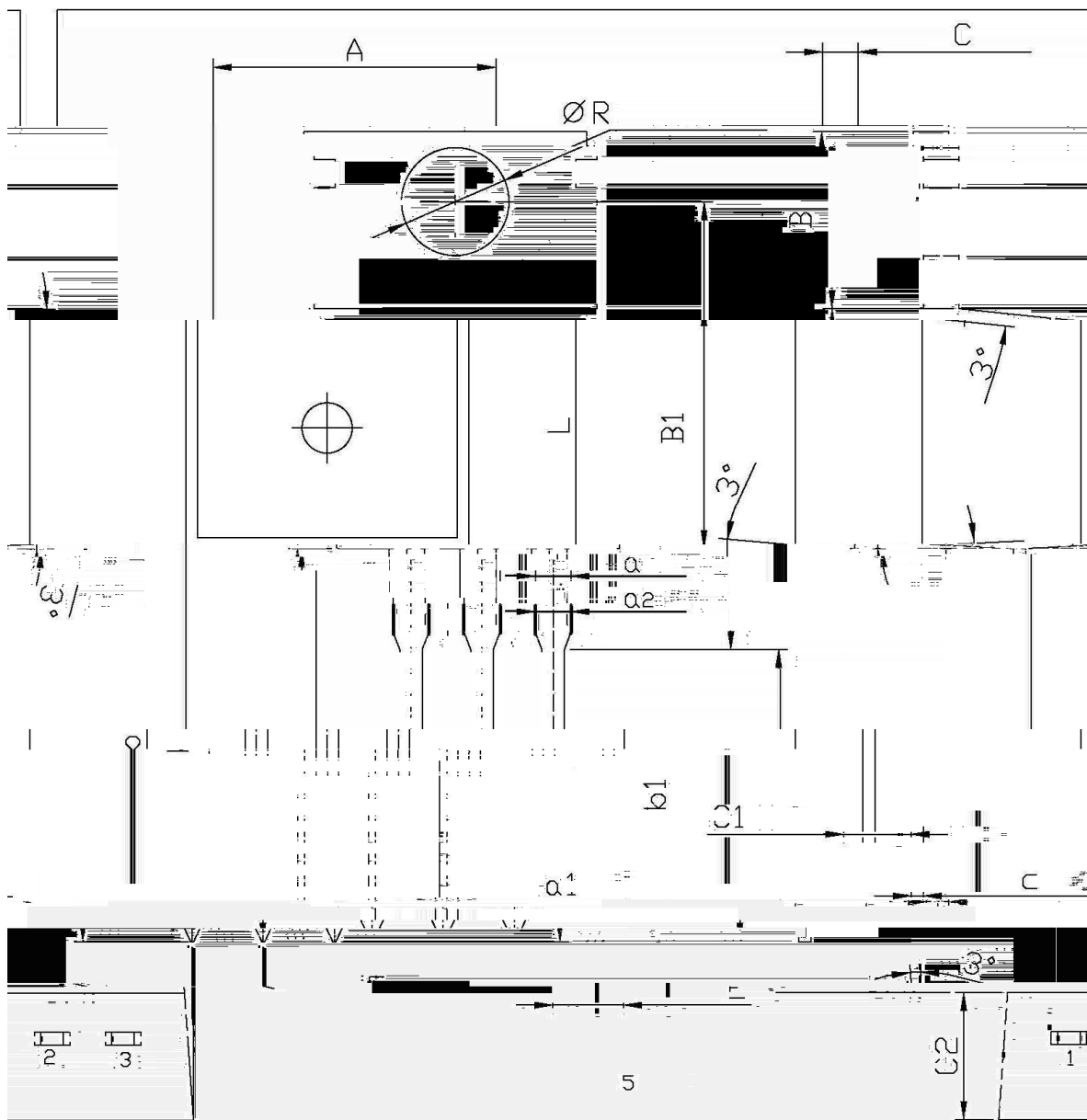
BRCS070N08SRA

Rev.A Dec.-2021



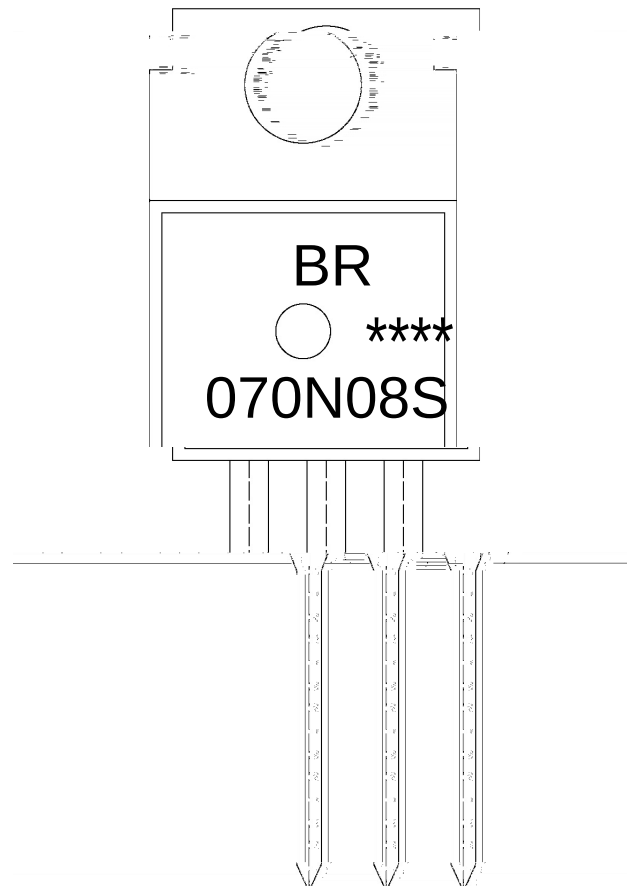
DATA SHEET

单位:



Symbol		Dimensions In Millimeters		Symbol		Dimensions In Millimeters	
Max			Min	Max			Min
1.4		A	9.8	10.2	C		1.2
6.7		R	3.56	3.64	B		6.3
	15.7		16.1	B1		9.0	9.4
h	12.6		13.6	C1		2.2	2.6
	n		9.6		n1		0.7
0.4	0.6				1.22		1.32
1.25	1.45						0.2

/ Marking Instructions



说明：

BR： 为公司代码

070N08S： 为型号代码

****： 为生产批号代码，随生产批号变化

Note:

BR: Company Code

070N08S: Product Type

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

() / Temperature Profile for Dip Soldering(Pb-Free)

