/ Revised record

A	2022.06.28	All	AOS-AON6452 BR-BRCS250N10SYB		

/ Descriptions

代

PDFN 5×6 封装 N 沟道场效应管。
N-Channel MOSFET in a PDFN 5×6 Plastic Package .

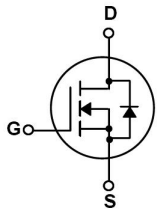
/ Features

V_{DS} (V) = 100V
I_D =28A (V_{GS} = ±20V)
$R_{DS(ON)}$@10V≤20mR(Typ.18mR)
。HF Product.

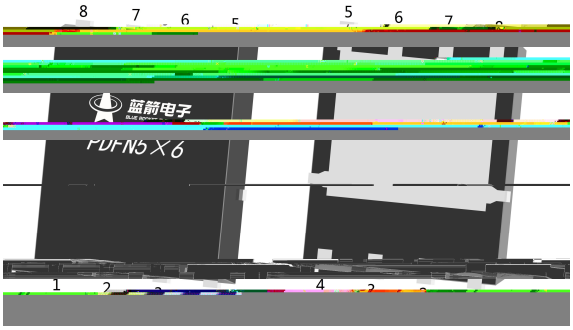
/ Applications

DC/DC AC/DC DC/DC
Synchronous rectification in DC/DC and AC/DC converters，Isolated DC/DC Converters in Telecom and Industrial.

/ Equivalent Circuit



/ Pinning



PIN1、2、3： S PIN4：G PIN5、6、7、8：D

Pin	极性
1	S
2	S
3	S
4	G
5	D
6	D
7	D
8	D

/ Marking

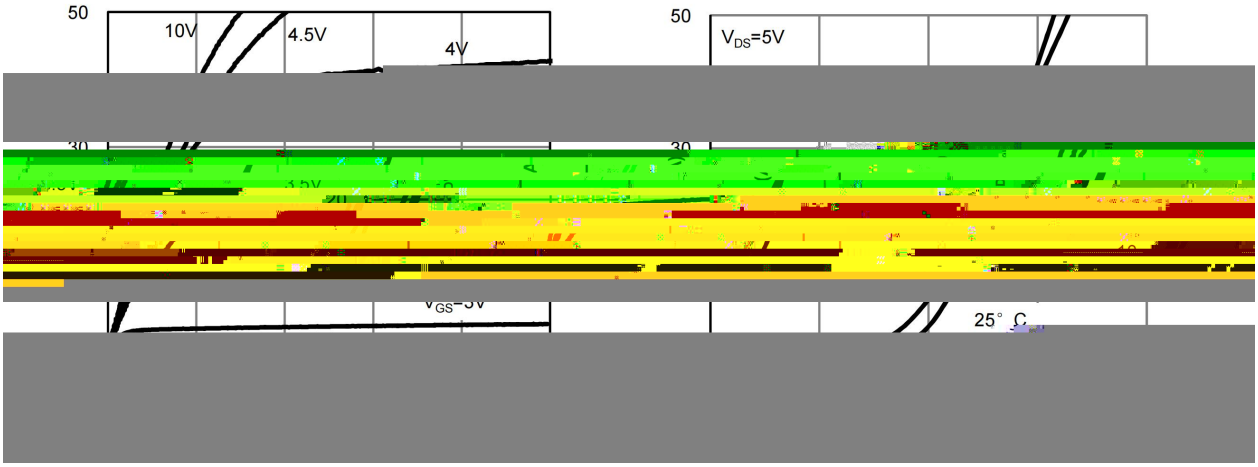
。See Marking Instructions.

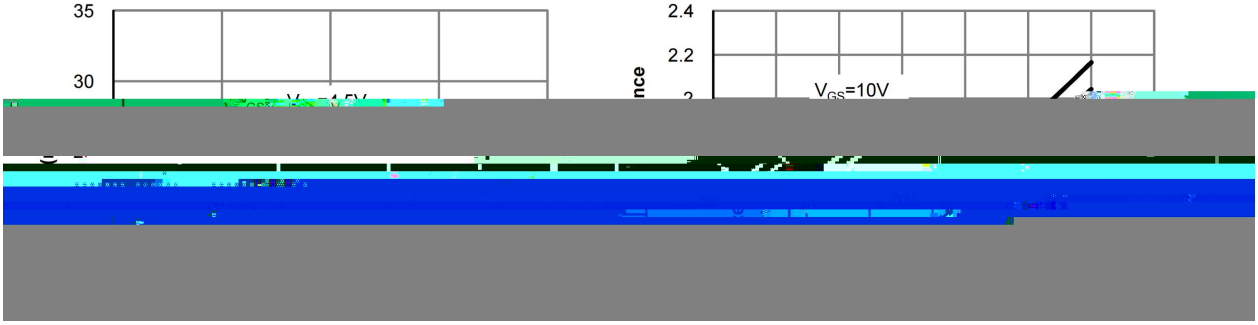
/ Absolute Maximum Ratings(Ta=25)

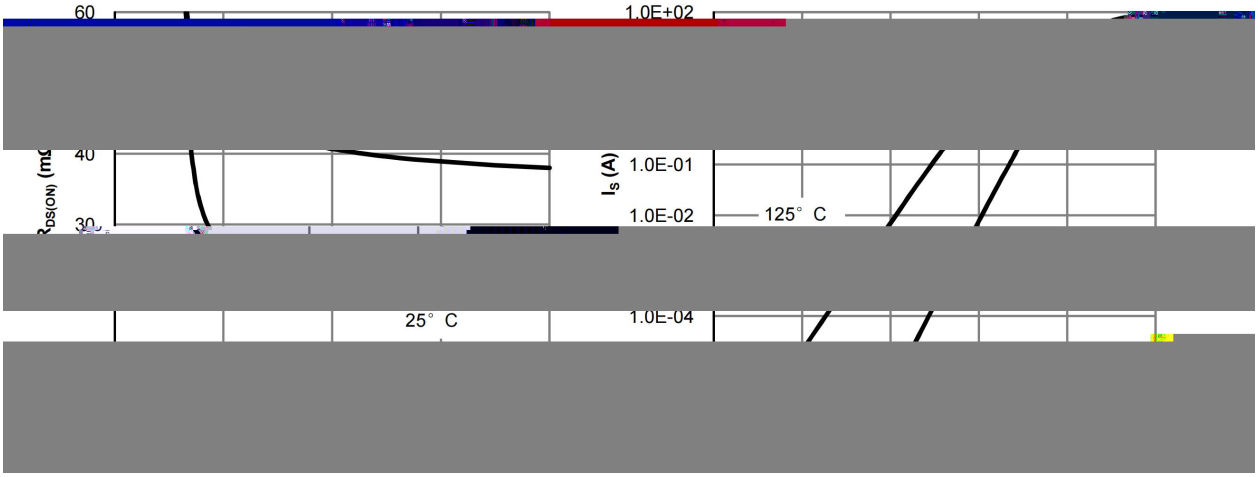
Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	100	V
Drain Current		I_D(Tc=25℃)	28	A
Drain Current - Pulsed		I_{DM}	60	A
Gate-Source Voltage		V_{GS}	±20	V
Single Pulsed Avalanche Energy		E_{AS}	14.4	mJ
Avalanche Current		I_{AS}	6	A
Power Dissipation		P_D(Tc=25℃)	35	W
Operating and Storage Temperature Range		T_J,T_{stg}	-55 to 150	℃
Junction-to-Ambient	t≤10	$R_{\theta JA}$	30	℃/W
Junction-to-Ambient	Steady-State		64	
Junction-to-Case	Steady-State	$R_{\theta JC}$	3.5	

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V	I_D=250μA	100	109		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=100V	V_{GS}=0V			1	μA
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±20V	V_{DS}=0V			±0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS}	I_D=250μA	1.0	1.6	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V	I_D=20A		18	20	mΩ
		V_{GS}=4.5V	I_D=10A		25	28	mΩ
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		820		pF
Output Capacitance	C_{oss}				475		
Reverse Transfer Capacitance	C_{rss}				35		
Gate resistance	R_g	V_{GS}=0V f=1MHz	V_{DS}=0V		1.9		Ω
Total Gate Charge	$Q_{g(10V)}$	V_{GS}=10V I_D=9A	V_{DS}=50V		17		nC
Total Gate Charge	$Q_{g(4.5V)}$				9		
Gate Source Charge	Q_{gs}				3		
Gate Drain Charge	Q_{gd}				3.5		
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=10V R_L=5.5Ω	V_{DS}=50V R_{GEN}=3.0Ω		5		ns
Turn-On Rise Time	t_r				3.2		
Turn-Off Delay Time	$t_{d(off)}$				21		
Turn-Off Fall Time	t_f				3		

/ Electrical Characteristic Curve 电性能







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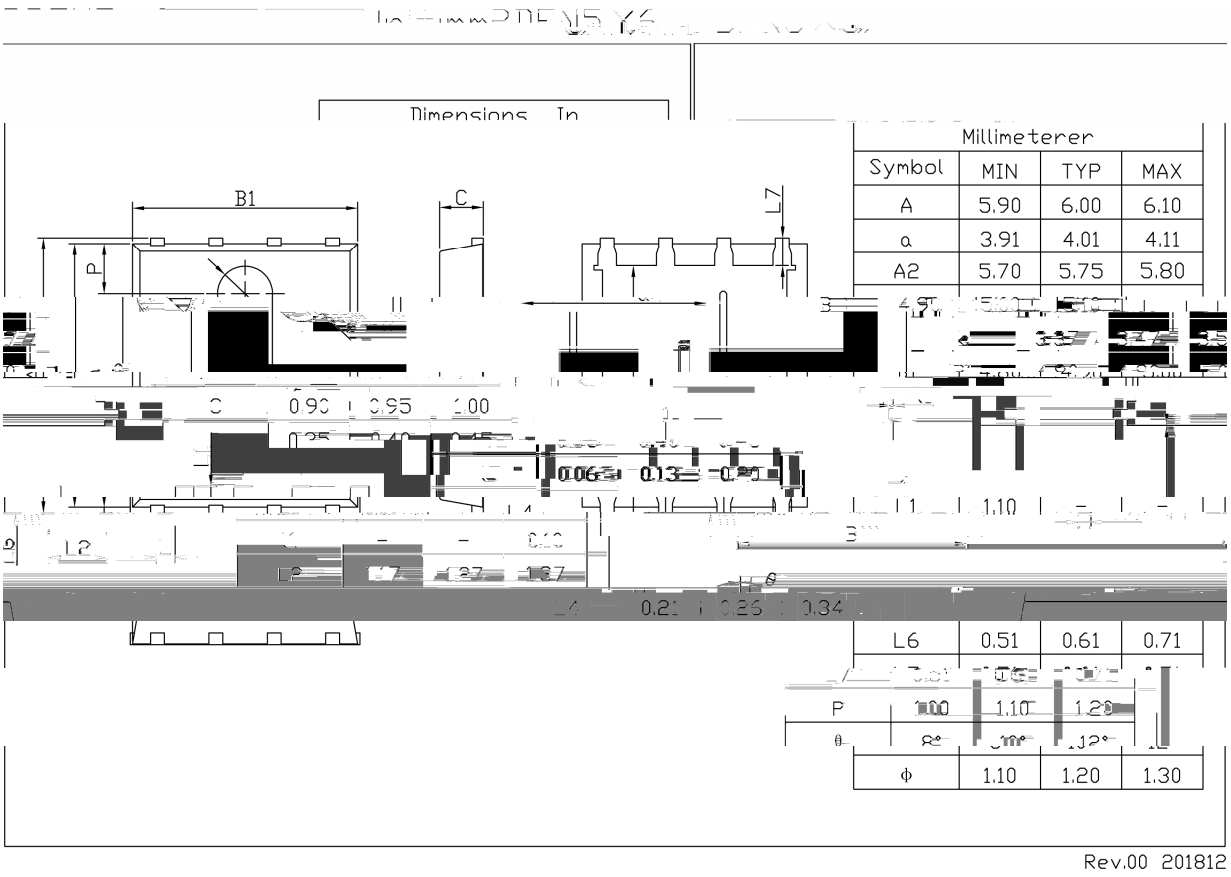
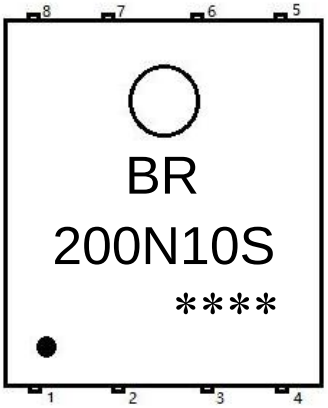
/ / Package Dimensions 殚



Millimeterer			
Symbol	MIN	TYP	MAX
A	5.90	6.00	6.10
a	3.91	4.01	4.11
A2	5.70	5.75	5.80
L6	0.51	0.61	0.71
P	1.00	1.10	1.20
θ	8°	10°	12°
Φ	1.10	1.20	1.30

/ Marking Instructions



说明：

BR： 为公司代码

200N10S： 为产品型号

****： 为生产批号代码，随生产批号变化

Note：

BR： Company Code

200N10S： Product Type

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

( ) / mp atu Pt 回 ℃ 1 R Wv g 无 无 无 无

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