



/ Revised record

A	2020.09.16		AOS-AO4453 BRCS120N02ZJ ID,PD,		
B	2021-12-1	8	3000 4000		

/ Descriptions

DFN 2*2B-6L 塑封封装 P 沟道 MOS 场效应管。
P-Channel Enhancement Mode Field Effect Transistor in a DFN 2*2B-6L Plastic Package.

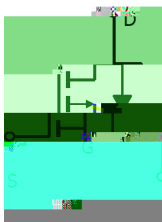
/ Features

$V_{DS} (V) = -12V$
 $I_D = -8 A (V_{GS} = \pm 10V)$
无卤产品。HF Product.

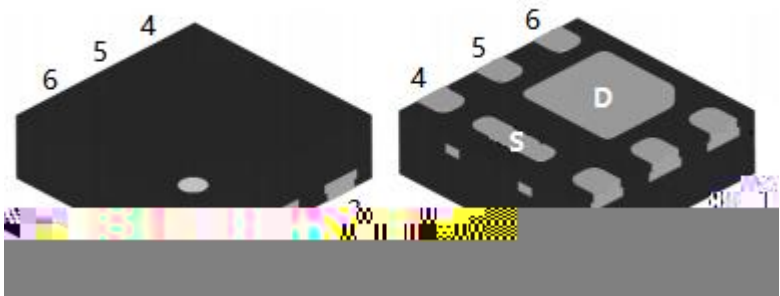
/ Applications

用于电源管理，便携式设备和电池供电系统。
Power Management in Notebook computer, Portable Equipment and Battery powered systems.

/ Equivalent Circuit



/ Pinning



出脚	定义
Pin1	D
Pin2	D
Pin3	G
Pin4	S
Pin5	D
Pin6	D

/ Marking

见印章说明 See Marking Instructions.



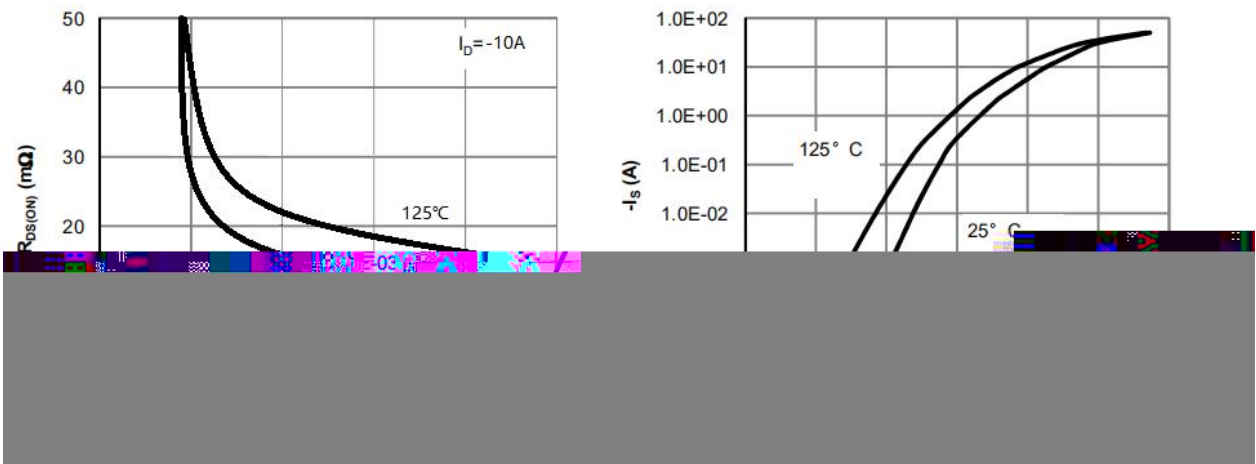
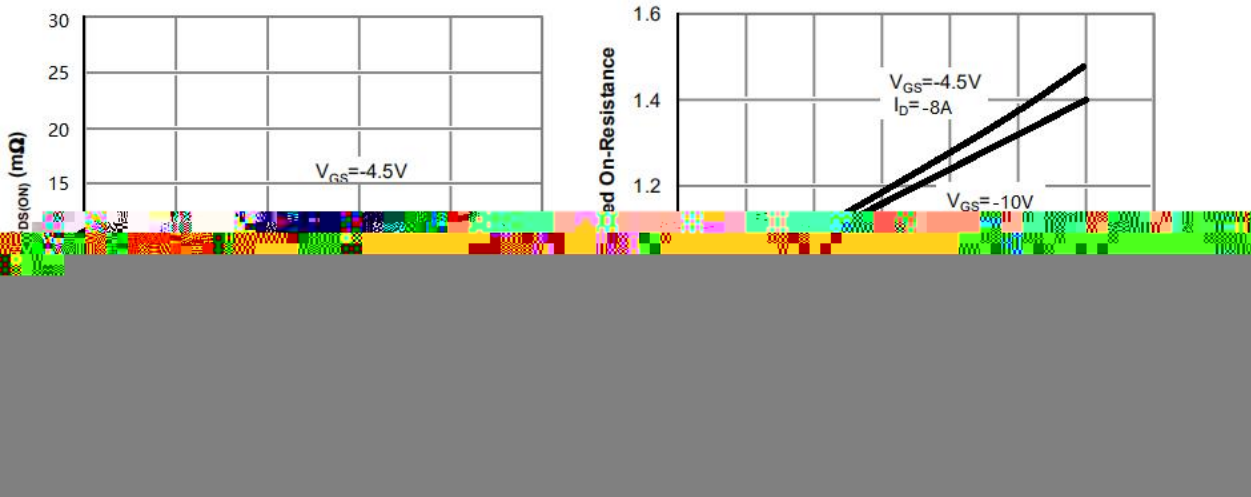
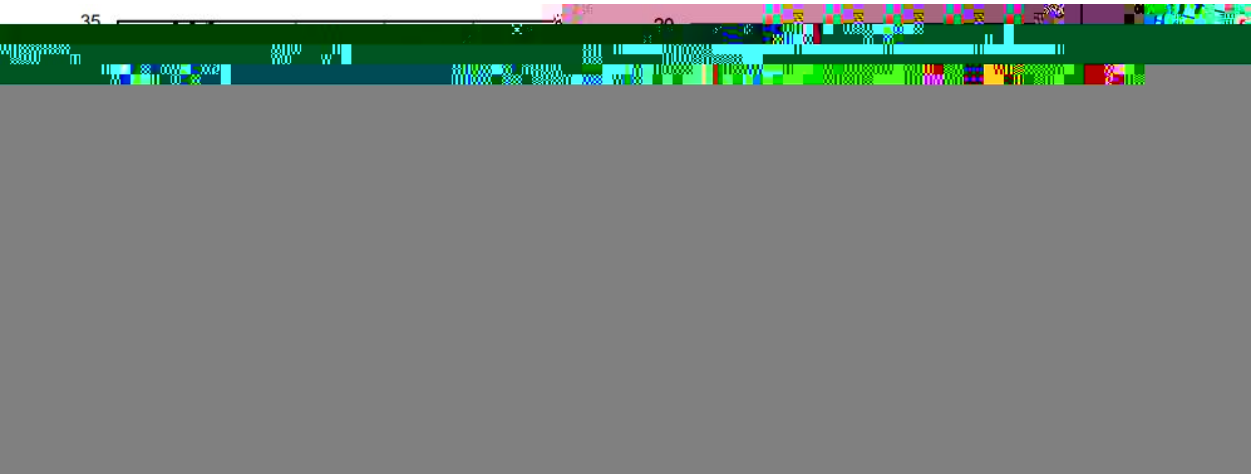
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Drain-Source Voltage	V_{DSS}	-12	V
Gate-Source Voltage	V_{GSS}	± 10	V
Continuous Drain Current	$I_D (T_a=25^{\circ}\text{C})$	-8	A
Continuous Drain Current	$I_D (T_a=70^{\circ}\text{C})$	-6	A
Pulsed Drain Current	I_{DM}	-32	A
Avalanche Current	I_{AS}		



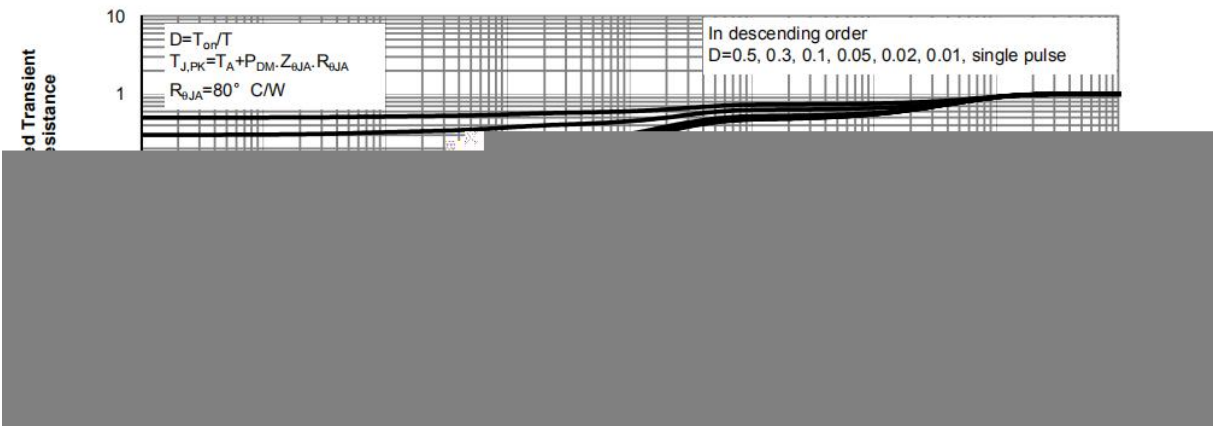
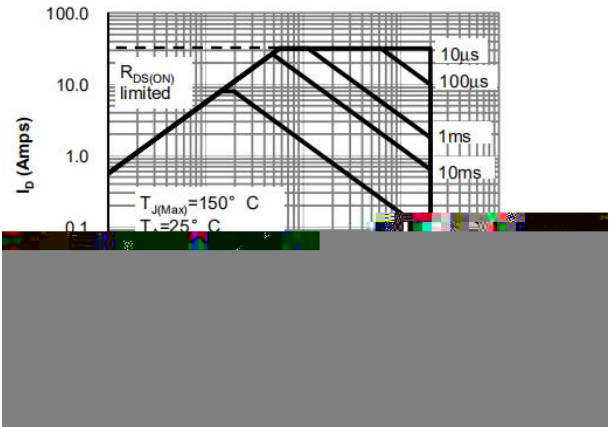
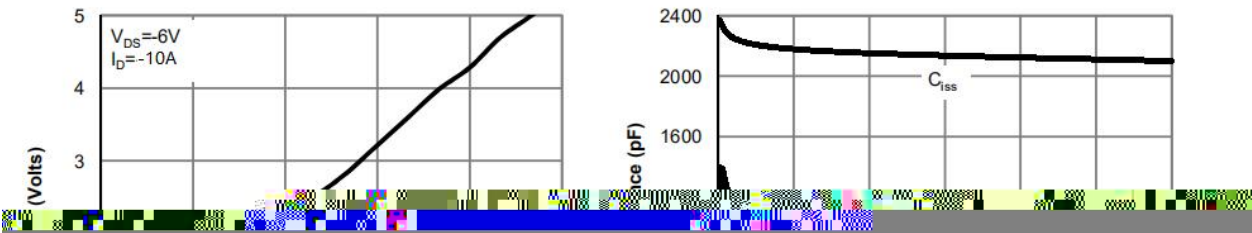
/ Electri

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}	$I_D = -250\mu A$ $V_{GS} = 0V$	-12	-17		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -12V$ $V_{GS} = 0V$			-1.0	μA
		$V_{DS} = -9.6V$ $V_{GS} = 0V$ $T_J = 55^\circ C$			-5.0	
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0V$ $V_{GS} = \pm 10V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$ $I_D = -250\mu A$	-0.4	-0.7	-1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -10V$ $I_D = -10A$		10	12	m Ω
		$V_{GS} = -4.5V$ $I_D = -8A$		11.5	14	
		$V_{GS} = -2.5V$ $I_D = -5A$		15.8	18	
Diode Forward Voltage	V_{SD}	$I_S = -1A$ $V_{GS} = 0V$		-0.74	-1.0	V
Gate Resistance	R_g	$V_{GS} = 0V$ $V_{DS} = 0V$ $f = 1MHz$		6.7		Ω
Input Capacitance	C_{iss}	$V_{DS} = -15V$ $V_{GS} = 0V$ $f = 1.0MHz$		2110		pF
Output Capacitance	C_{oss}			550		
Reverse Transfer Capacitance	C_{rss}			385		
Total Gate Charge	Q_g	$V_{GS} = -4.5V$ $V_{DS} = -6V$ $I_D = -10A$		12.7		nC
Gate-Source Charge	Q_{gs}			1.7		
Gate-Drain Charge	Q_{gd}			3.4		
Turn-on Delay Time	$t_{d(on)}$	$V_{GS} = -4.5V$ $V_{DS} = -6V$ $R_L = 0.67\Omega$ $R_{GEN} = 3\Omega$		11		ns
Turn-on Rise Time	t_r			25		
Turn-off Delay Time	$t_{d(off)}$			70		
Turn-off Fall Time	t_f			41.5		

/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



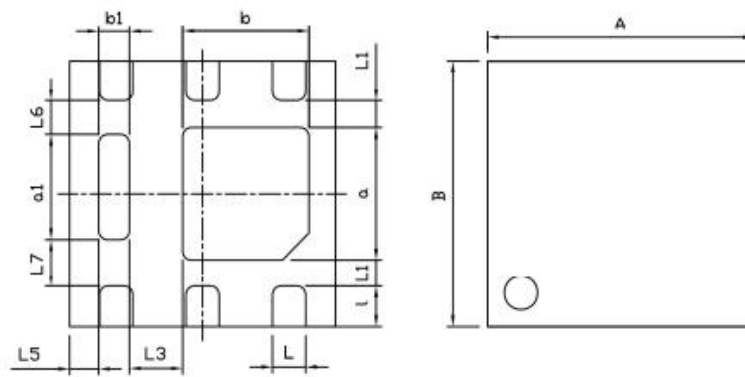


/ Package Dimensions

DFN2×2B-6L-0.5 外形尺寸图

DFN2×2B-6L-0.5

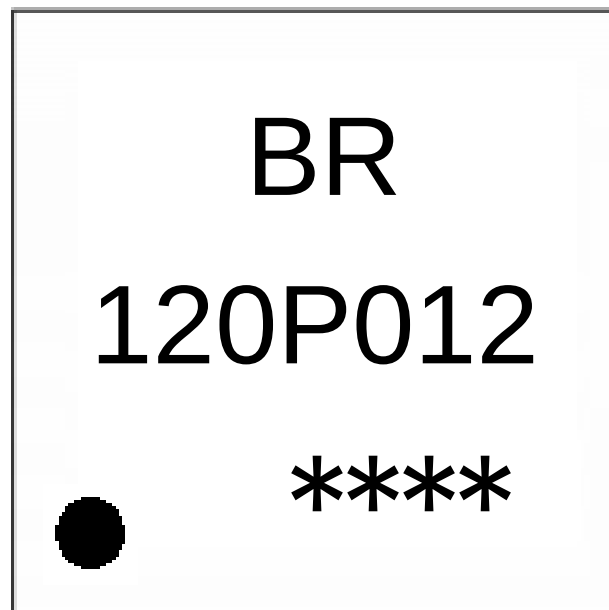
Unit:mm



Dimensions In Millimeter			
Symbol	MIN	TYP	MAX
A	1.95	2.00	2.05
B	1.95	2.00	2.05
C	0.45	0.50	0.55
L	0.25	0.30	0.35
L1	0.10	0.20	0.30
L2	-	0.65	-
L3	0.30	0.40	0.50
L4	-	0.152	-
L5	0.12	0.22	0.32
L6	0.15	0.25	0.35
L7	0.23	0.33	0.43
a	0.90	1.00	1.10
a1	0.72	0.82	0.92
b	0.85	0.95	1.05
b1	0.12	0.22	0.32



/ Marking Instructions



BR

120P012

Note:

BR: Company Code.

120P012: Product Type

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



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