

/ Revised record

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

/ Descriptions

DFN 2*2B-6L P ! " MOS # \$ % & '
P-Channel Enhancement Mode Field Effect Transistor in a DFN 2*2B-6L Plastic Package.

/ Features

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

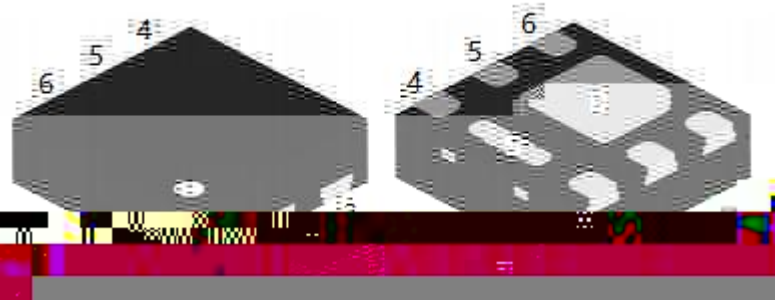
/ Applications

, - . / & 0 1 2 3 4 5 6 7 . 8 9 . : ; '
Power Management in Notebook computer, Portable Equipment and Battery powered systems.

/ Equivalent Circuit



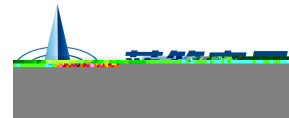
/ Pinning



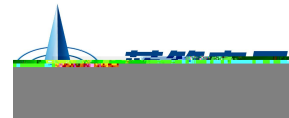
出脚	定义
Pin1	D
Pin2	D
Pin3	G
Pin4	S
Pin5	D
Pin6	D

/ Marking

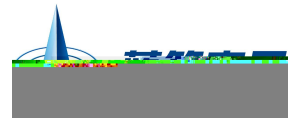
< = > ? @ See Marking Instructions.



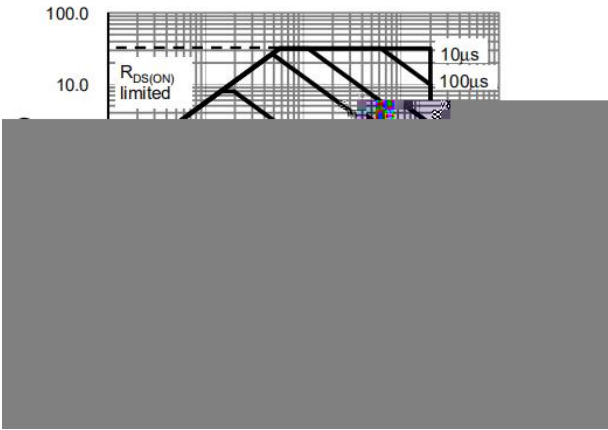
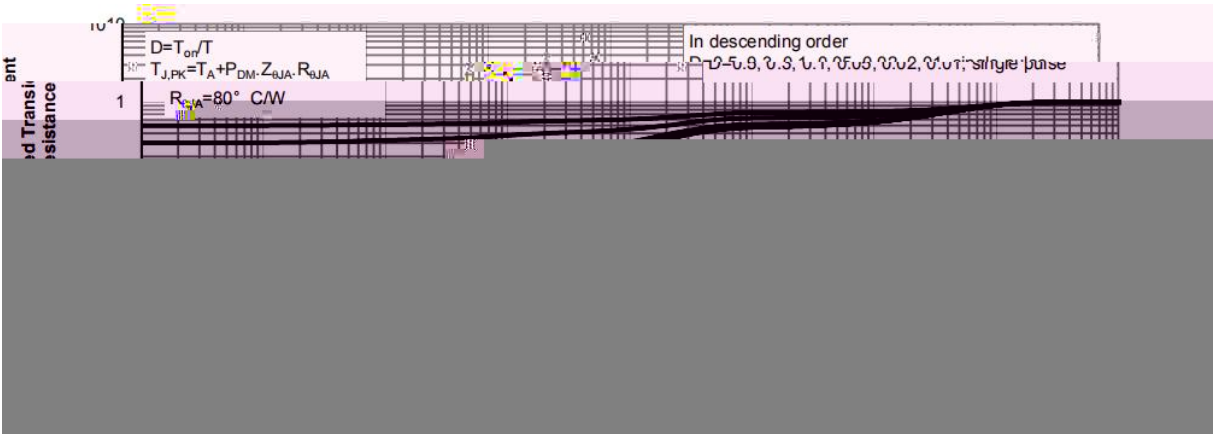
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	-12	V
Gate-Source Voltage	V_{GSS}	± 10	V
Continuous Drain Current	$I_D (T_a=25^\circ\text{C})$	-8	A
Continuous Drain Current	$I_D (T_a=70^\circ\text{C})$	-6	A
Pulsed Drain Current	I_{DM}	-32	
Avalanche Current	I_{AS}		

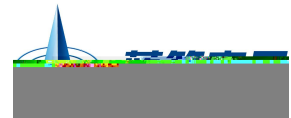


Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D = -250\mu A$ $V_{GS} = 0V$	-12	-17		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -12V$ $V_{GS} = 0V$			-1.0	μA
		$V_{DS} = -9.6V$ $V_{GS} = 0V$ $T_J = 55^\circ C$			-5.0	
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0V$ $V_{GS} = \pm 10V$			± 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		



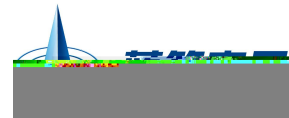
/ Electrical Characteristic Curve



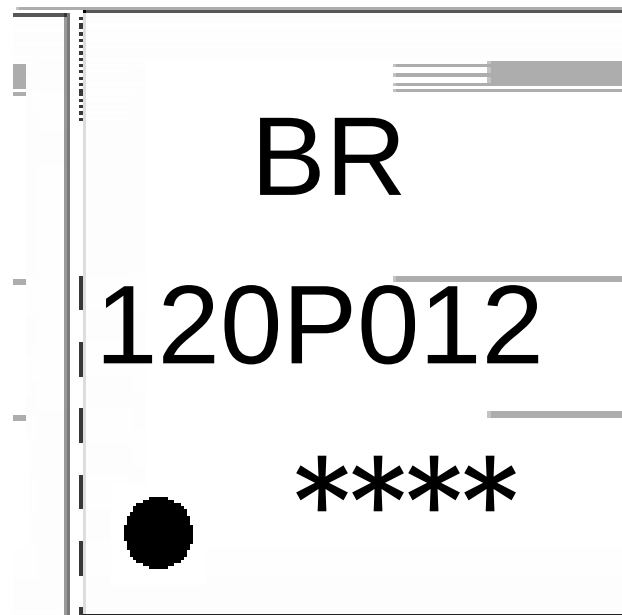


/ Package Dimensions





/ Marking Instructions



BR

120P012

Note:

BR: Company Code.

120P012: Product Type

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

