

BRCS070N03ZJ

Rev.B May.-2025

/ Descriptions

N-Channel Enhancement Mode Field Effect Transistor in a DFN2 2B-6L Plastic Package.

/ Features

$V_{DS} (V) = 30V$ $I_D = 14.7A (V_{GS} = \pm 20V)$

$R_{DS(ON)}@10V < 7m$ (Typ. 6.3m)

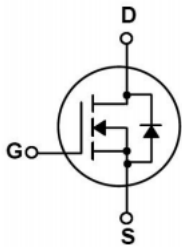
$R_{DS(ON)}@4.5V < 12m$ (Typ. 9.5m)

HF Product.

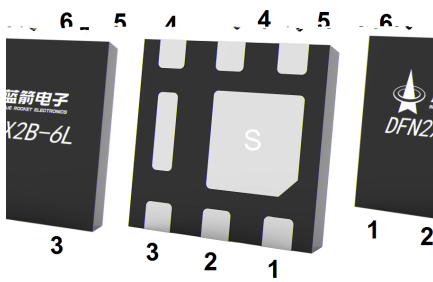
/ Applications

Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products.

/ Equivalent Circuit



/ Pinning



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

/ Marking

See Marking Instructions.

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Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	30	V
Drain Current		I_D	14.7	A
Gate-Source Voltage		V_{GS}	± 20	V
Power Dissipation		$P_D(T_c=25^\circ C)$	2.5	W
Junction Temperature Range		T_j	150	
Storage Temperature Range		T_{stg}	-55~150	
Maximum Junction-to-Ambient	$t \leq 10s$	$R_{\theta JA}$	50	/W
	Steady-State		75	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	30	35		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=30V$ $V_{GS}=0V$			1	μA

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{DS}=15\text{ V}$ $V_{GS}=10\text{V}$ $R_L=0.75$ $R_{GEN}=3$		11		ns
Turn-On Rise Time	t_r			14		ns
Turn-Off Delay Time	$t_{d(off)}$			38		ns
Turn-Off Fall Time	t_f			10		ns

/ Electrical Characteristic Curve

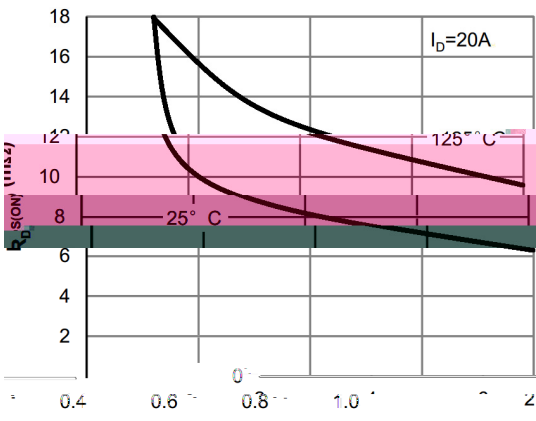
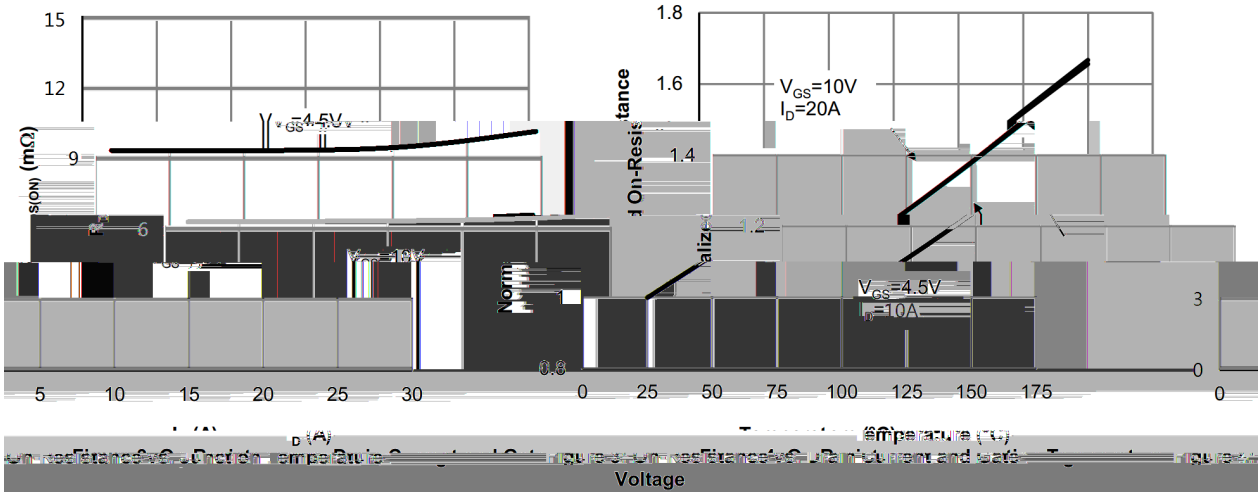
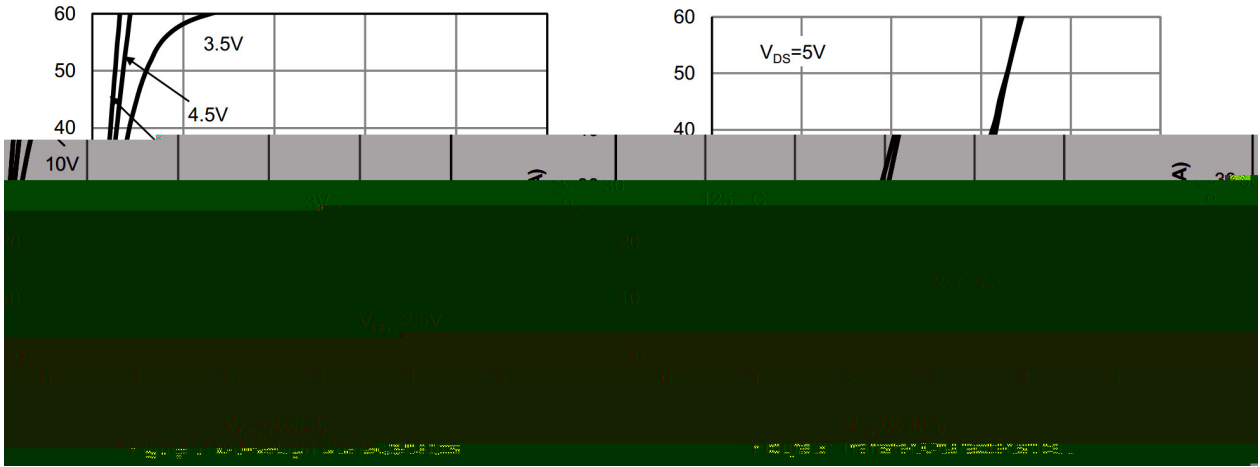


Figure 6: Body-Diode Characteristics

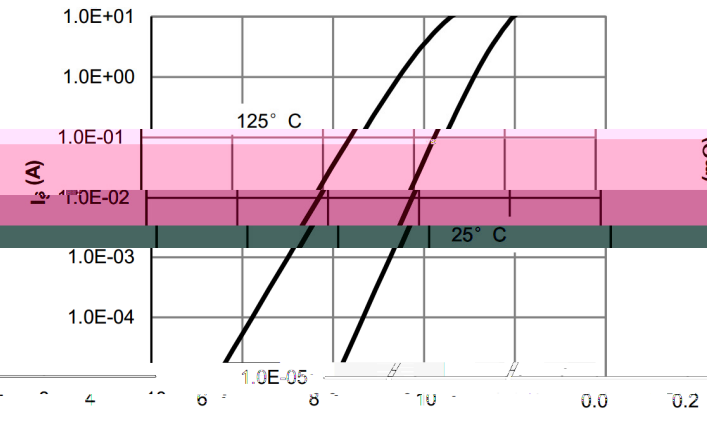
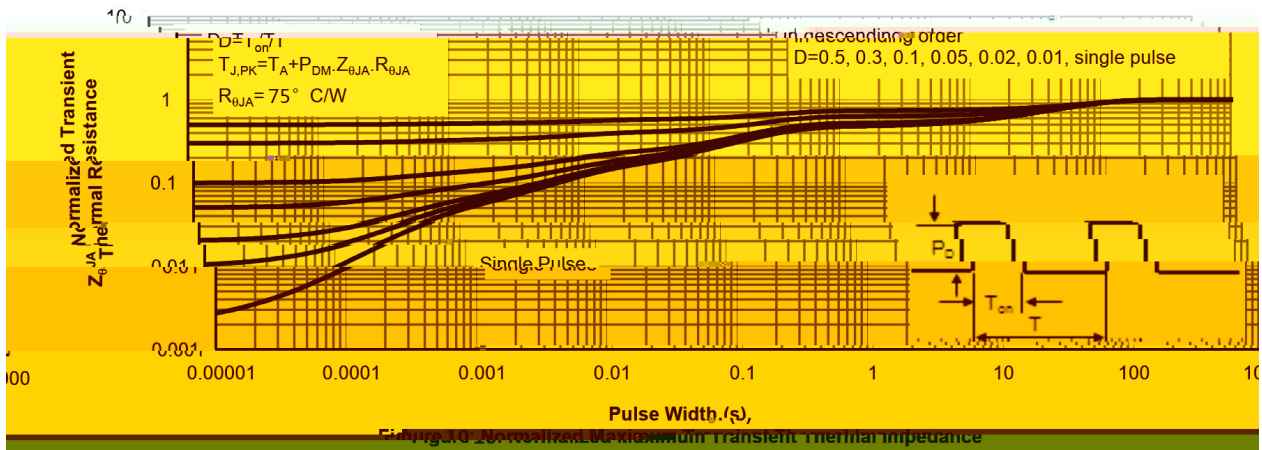
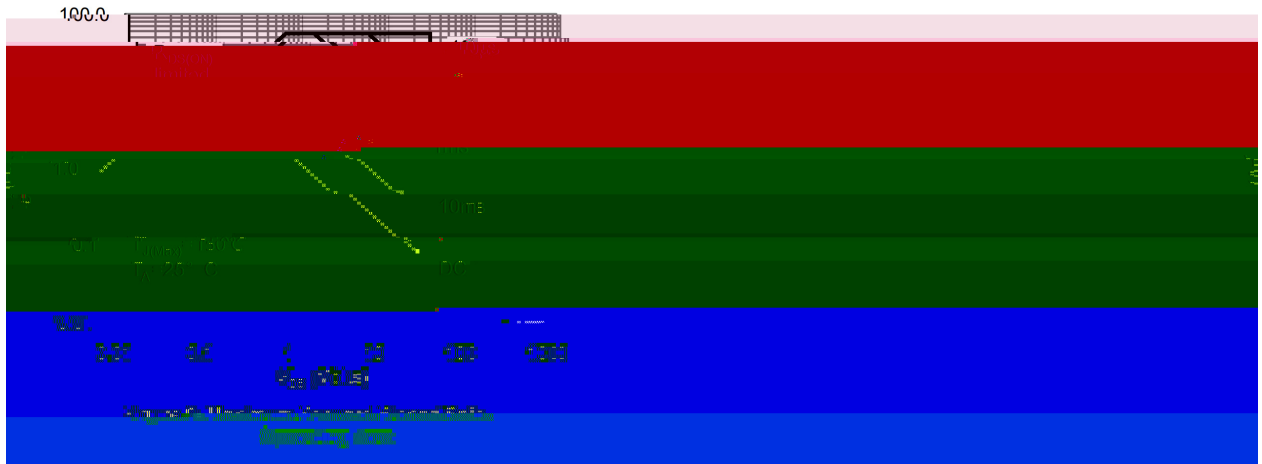
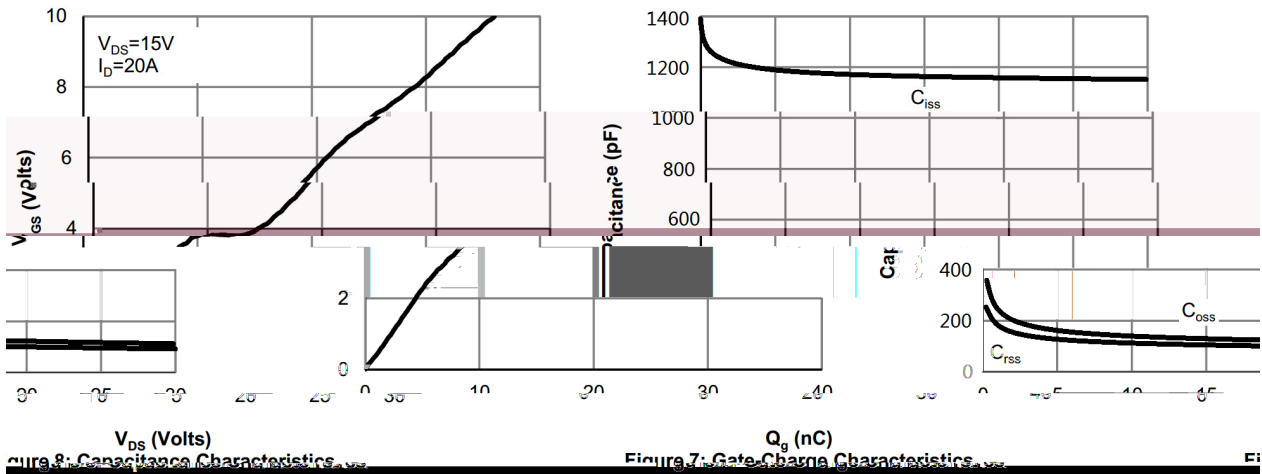


Figure 5: On-Resistance vs. Gate-Source Voltage

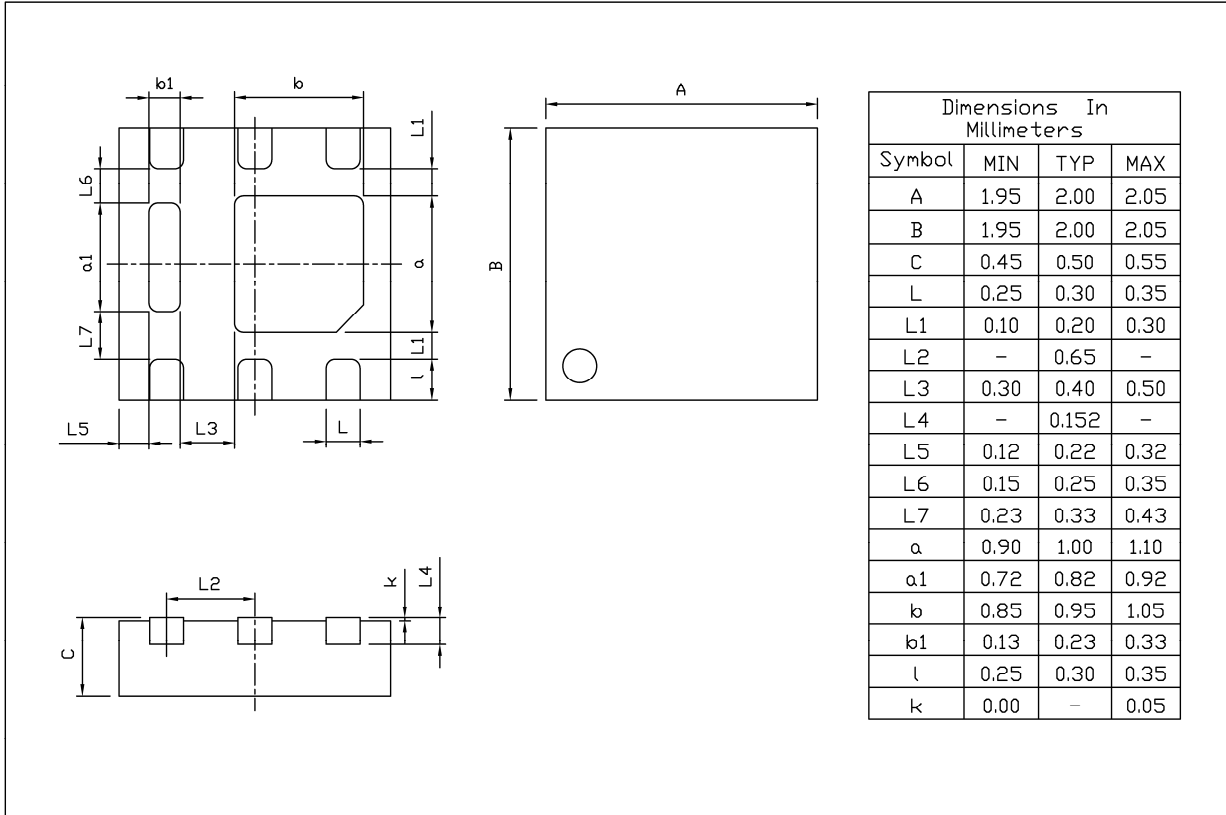
/ Electrical Characteristic Curve



/ Package Dimensions

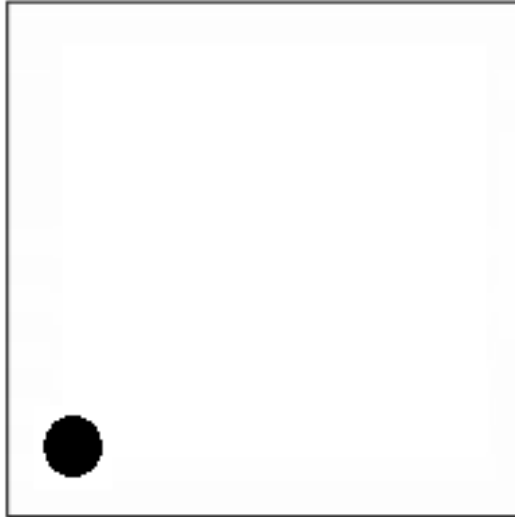
DFN2 X2B-6L-0.5

Unit:mm



Rev.01 202006

/ Marking Instructions



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