

BRCS300P016ZJ

Rev.A Sep.-2022

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

$V_{DS} (V) = -16V$ $I_D = -11A$

$R_{DS(ON)} @ -4.5V \leq 32m \Omega$

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Power Management in Notebook computer, Portable Equipment and Battery powered systems.

/ Absolute Maximum Ratings($T_c=25$)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	-16	V
Gate-Source Voltage	V_{GSS}	± 8	V
Continuous Drain Current	I_D	-11	A
Pulsed Drain Current	I_{DM}	-44	A
Avalanche Current	I_{AS}	21	A
Avalanche energy $L=0.5mH$	E_{AS}	308	mJ
Power Dissipation for Single Operation	P_D	15.5	W
Maximum Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 150	$^{\circ}C$
Thermal Resistance-Junction to Ambient	$R_{JC} \quad t \quad 10s$	8	$^{\circ}C/W$

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DATA SHEET

/ Electrical Characteristic Curve

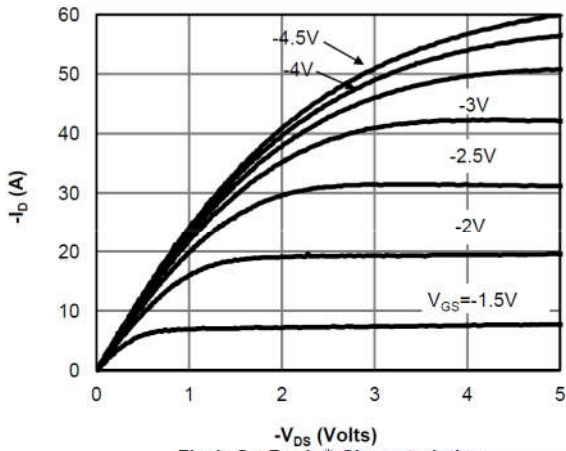


Figure 1: On-Resistance Characteristics

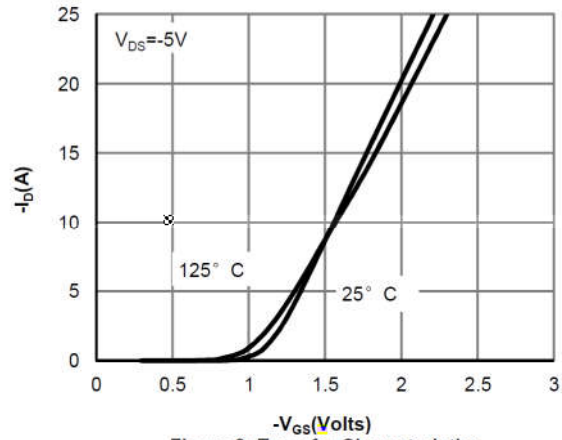


Figure 2: Transfer Characteristics

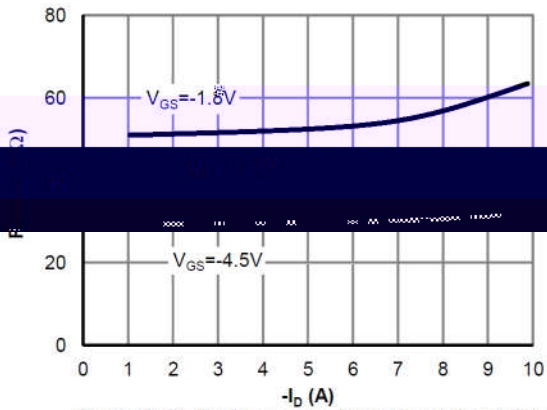


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

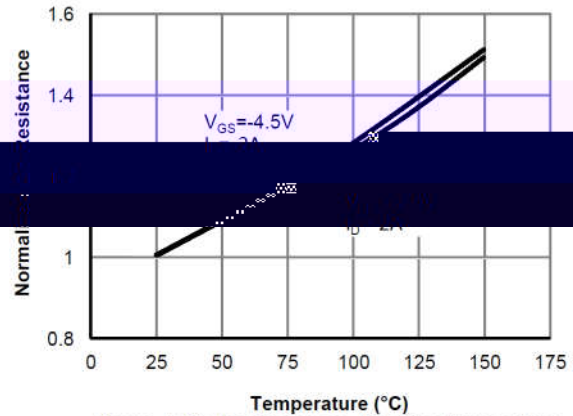


Figure 4: On-Resistance vs. Junction Temperature

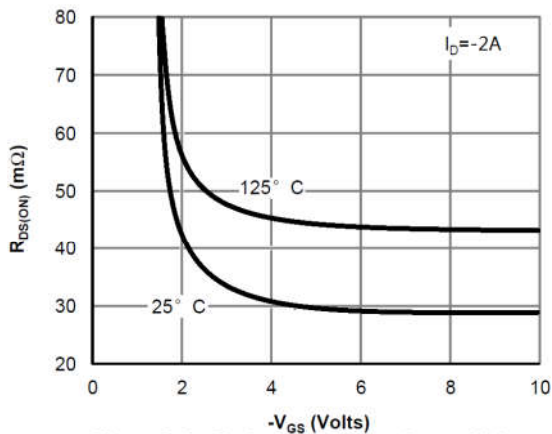


Figure 5: On-Resistance vs. Gate-Source Voltage

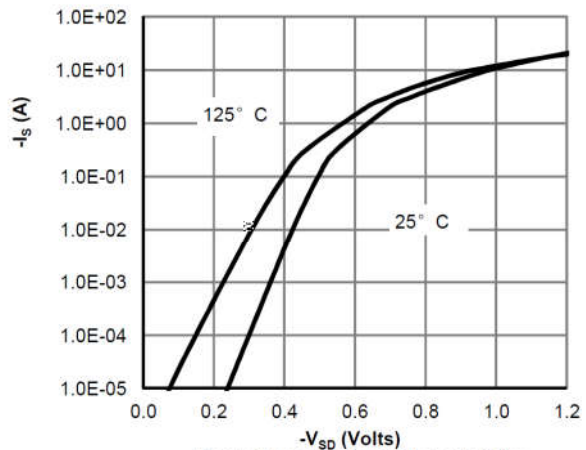


Figure 6: Body-Diode Characteristics

/ Electrical Characteristic Curve

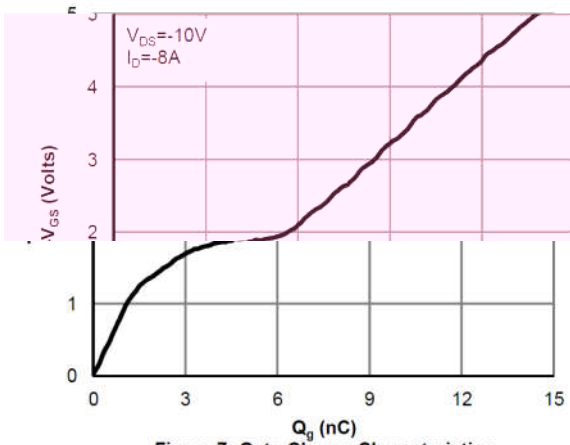


Figure 7: Gate-Charge Characteristics

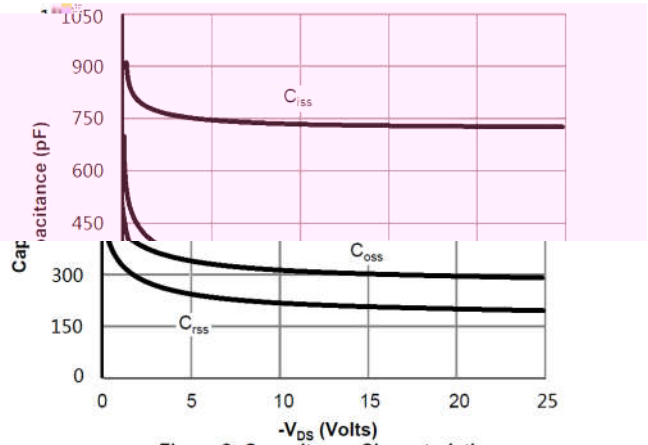


Figure 8: Capacitance Characteristics

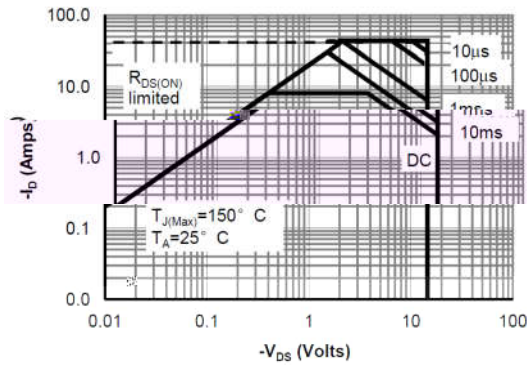


Figure 9: Maximum Forward Biased Safe Operating Area

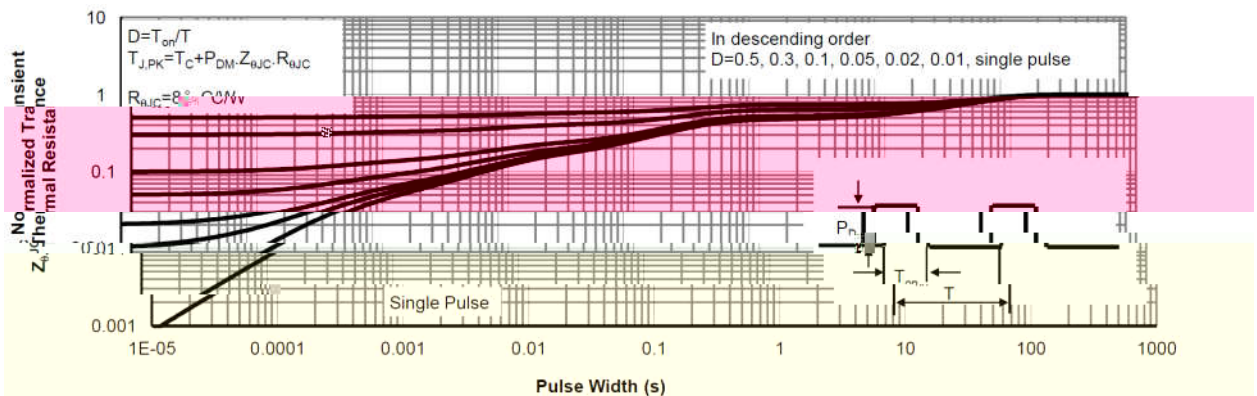
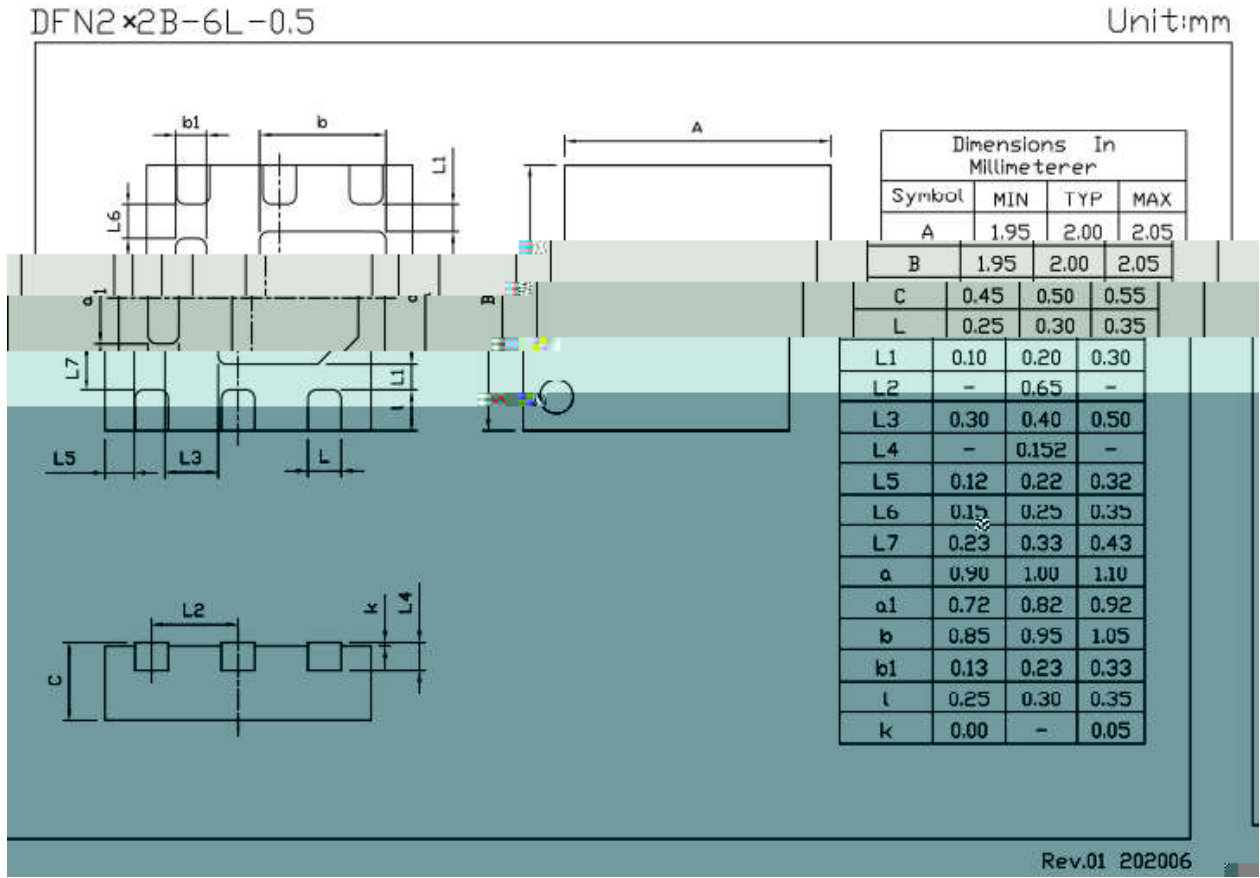


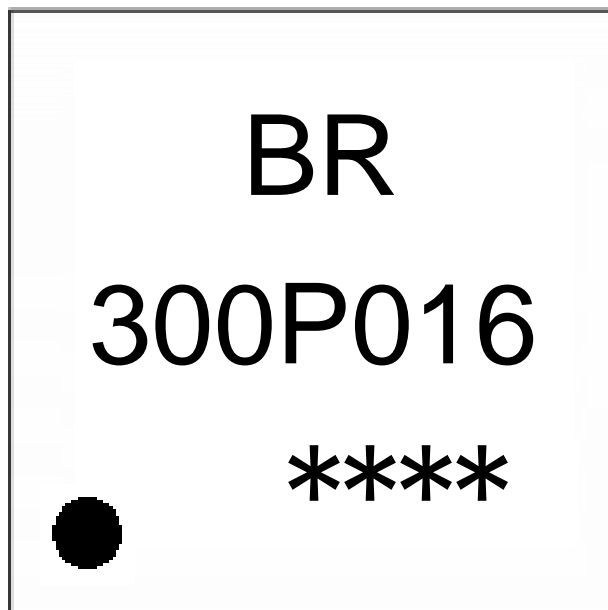
Figure 10: Normalized Maximum Transient Thermal Impedance

/ Package Dimensions

DFN2×2B-6L-0.5 外形尺寸图



/ Marking Instructions



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300P016

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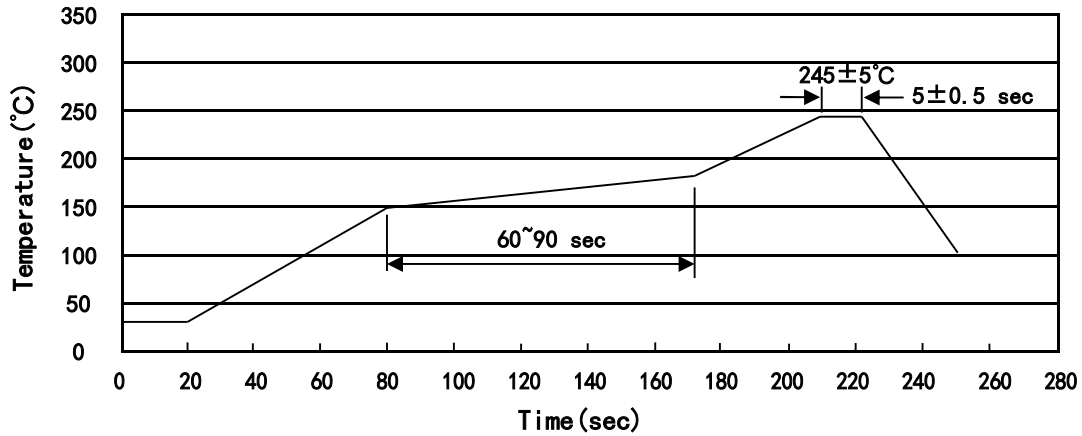
Note:

BR: Company Code

300P016: Product Type

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

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

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|---|-----|-----|----|---------|---|
| 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 Conditions

260 5 10 1 sec. Temp.:260±5°C Time:10±1 sec

/ Packaging SPEC.

次 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
DFN 2×2B-6L	4,000	10	40,000	4	160,000	7" ×8	210×205×205	445×230×435

/ Notices