

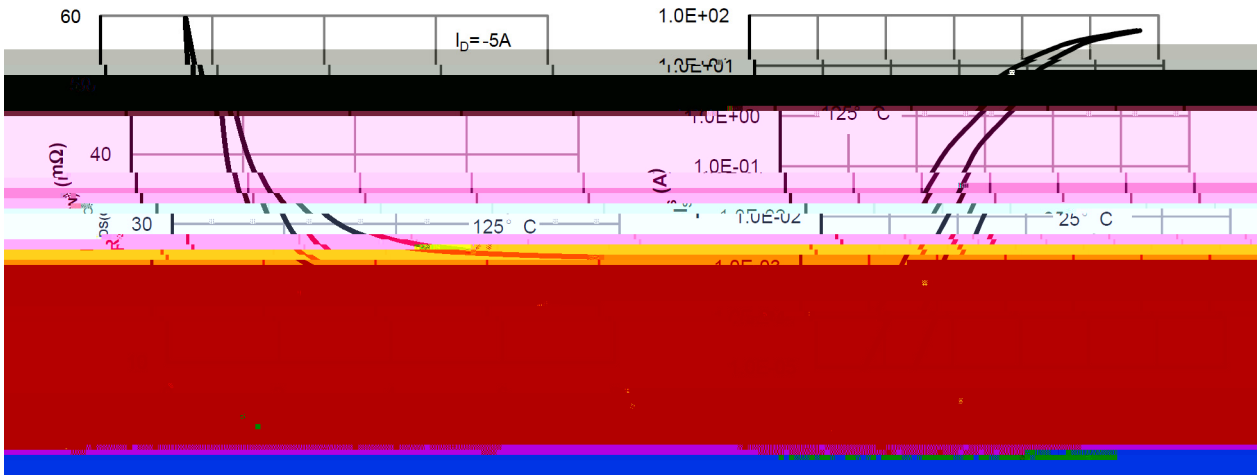
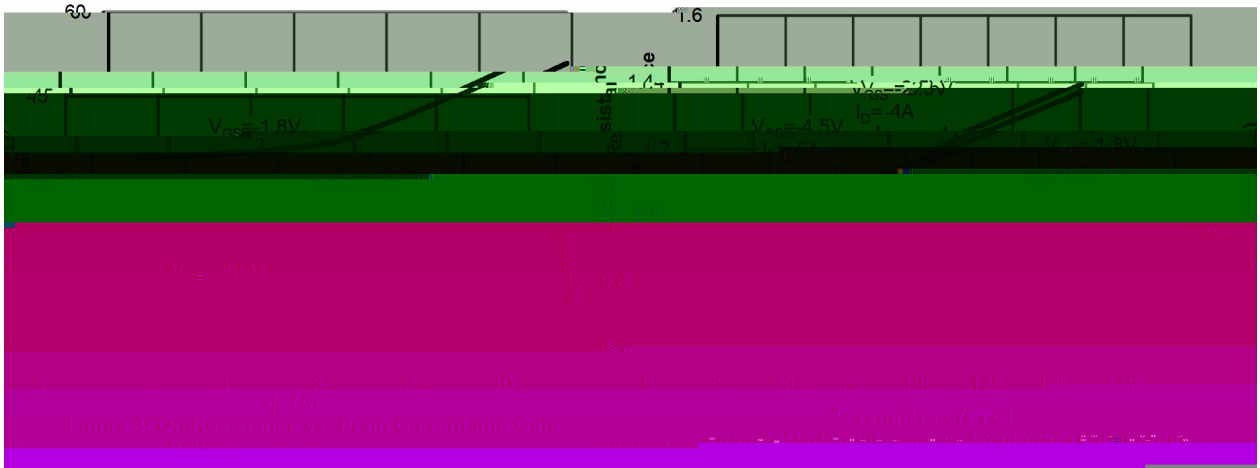
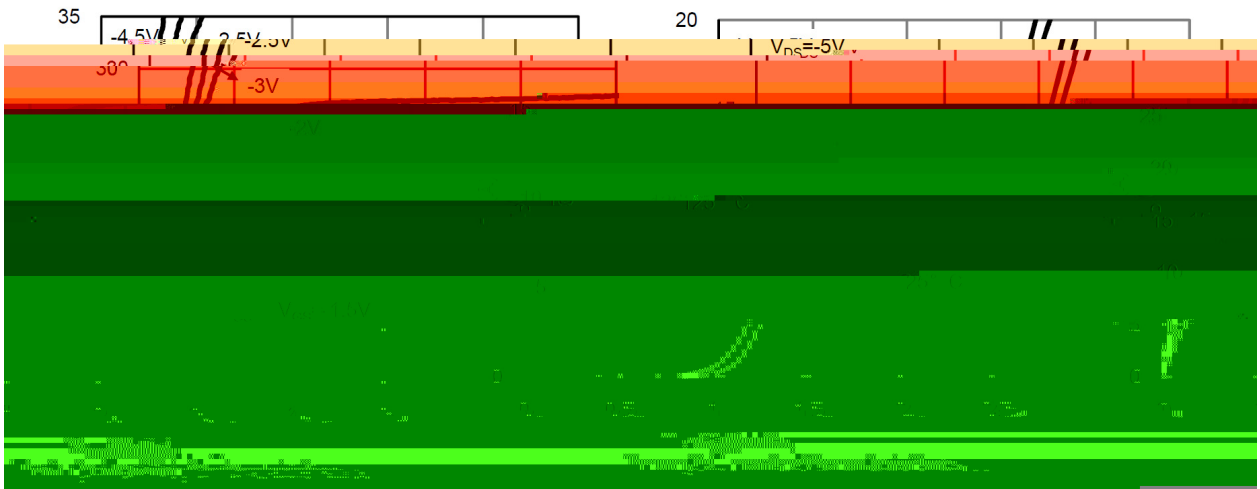
BRCS200P02ZJ
Rev.A Dec.-2023

/ Absolute Maximum Ratings($T_a=25$)

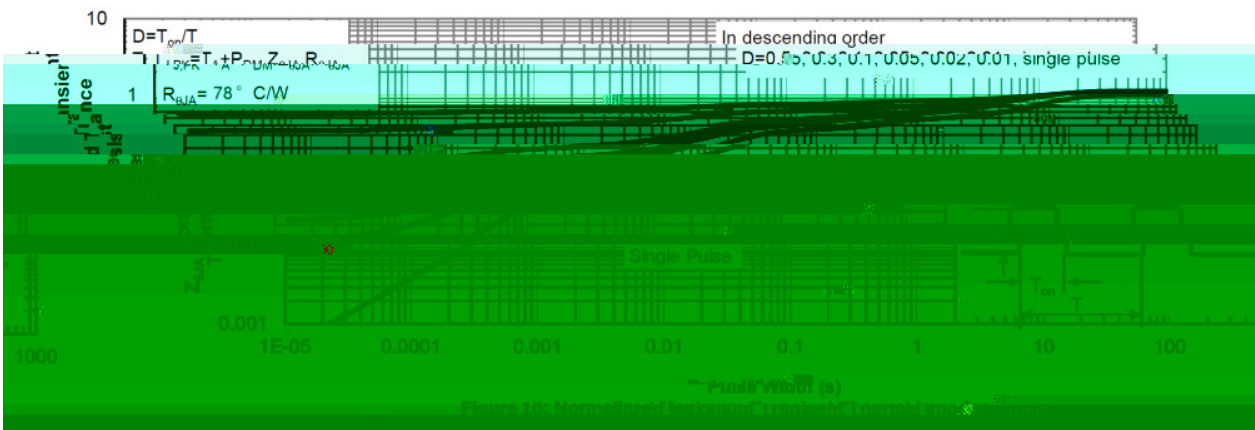
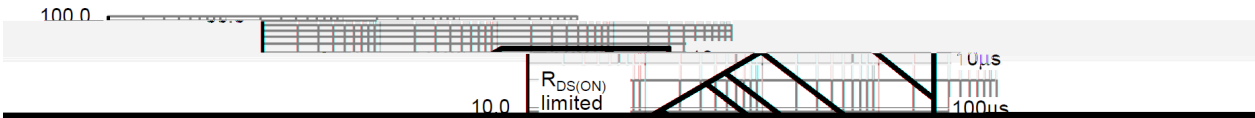
| Parameter | Symbol | Rating | Unit | |
|--|------------------------|----------|------|----|
| Drain-Source Voltage | V_{DSS} | -20 | V | |
| Gate-Source Voltage | V_{GSS} | ± 12 | V | |
| Continuous Drain Current | $I_D (T_a=25^\circ C)$ | -9.5 | A | |
| Pulsed Drain Current | I_{DM} | -43 | A | |
| Power Dissipation for Single Operation | $P_D (T_a=25)$ | 2.8 | W | |
| Maximum Junction Temperature | T_j | 150 | | |
| Storage Temperature Range | T_{stg} | -55 150 | | |
| Thermal Resistance-Junction to Ambient | t 10s | R_{JA} | 45 | /W |
| | Steady State | | 78 | /W |

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|-----------------------------------|--------------|--|------|-------|-----------|---------|
| Drain-Source Breakdown Voltage | BV_{DSS} | $I_D=-250\mu A$ $V_{GS}=0V$ | -20 | -22.5 | | V |
| Zero Gate Voltage Drain Current | I_{DSS} | $V_{DS}=-20V$ $V_{GS}=0V$ | | | -1.0 | μA |
| Gate-Body leakage current | I_{GSS} | $V_{DS}=0V$ $V_{GS}=\pm 12V$ | | | ± 100 | nA |
| Gate Threshold Voltage | $V_{GS(th)}$ | $V_{DS}=V_{GS}$ $I_D=-250\mu A$ | -0.5 | -0.6 | -1.0 | V |
| Static Drain-Source On-Resistance | $R_{DS(ON)}$ | $V_{GS}=-4.5V$ $I_D=-5A$ | | 20 | 22 | m |
| | | $V_{GS}=-2.5V$ $I_D=-4A$ | | 26 | 30 | |
| | | $V_{GS}=-1.8V$ $I_D=-3A$ | | 35 | 100 | |
| Diode Forward Voltage | V_{SD} | $I_S=-1A$ $V_{GS}=0V$ | | | -1.2 | V |
| Gate resistance | R_g | $V_{GS}=0V,$ $f=1MHz$ $V_{DS}=0V,$ | | 11 | | |
| Input Capacitance | C_{iss} | $V_{GS}=0V$ $V_{DS}=-5V$ $f=1MHz$ | | 1700 | | pF |
| Output Capacitance | C_{oss} | | | 600 | | |
| Reverse Transfer Capacitance | C_{rss} | | | 450 | | |
| Total Gate Charge | Q_g | $V_{GS}=-4.5V,$ $V_{DS}=-10V,$ $I_D=-6A$ | | 13 | | nC |
| Gate Source Charge | Q_{gs} | | | 2.5 | | |
| Gate Drain Charge | Q_{gd} | | | 4.2 | | |
| Turn-On Delay Time | $t_{d(on)}$ | $V_{GS}=-4.5V$ $R_L=1.25$ $V_{DS}=-10V$ $R_{GEN}=3$ | | 7.5 | | ns |
| Turn-On Rise Time | t_r | | | 29.2 | | |
| Turn-Off Delay Time | $t_{d(off)}$ | | | 103 | | |
| Turn-Off Fall Time | t_f | | | 50 | | |

/ Electrical Characteristic Curve



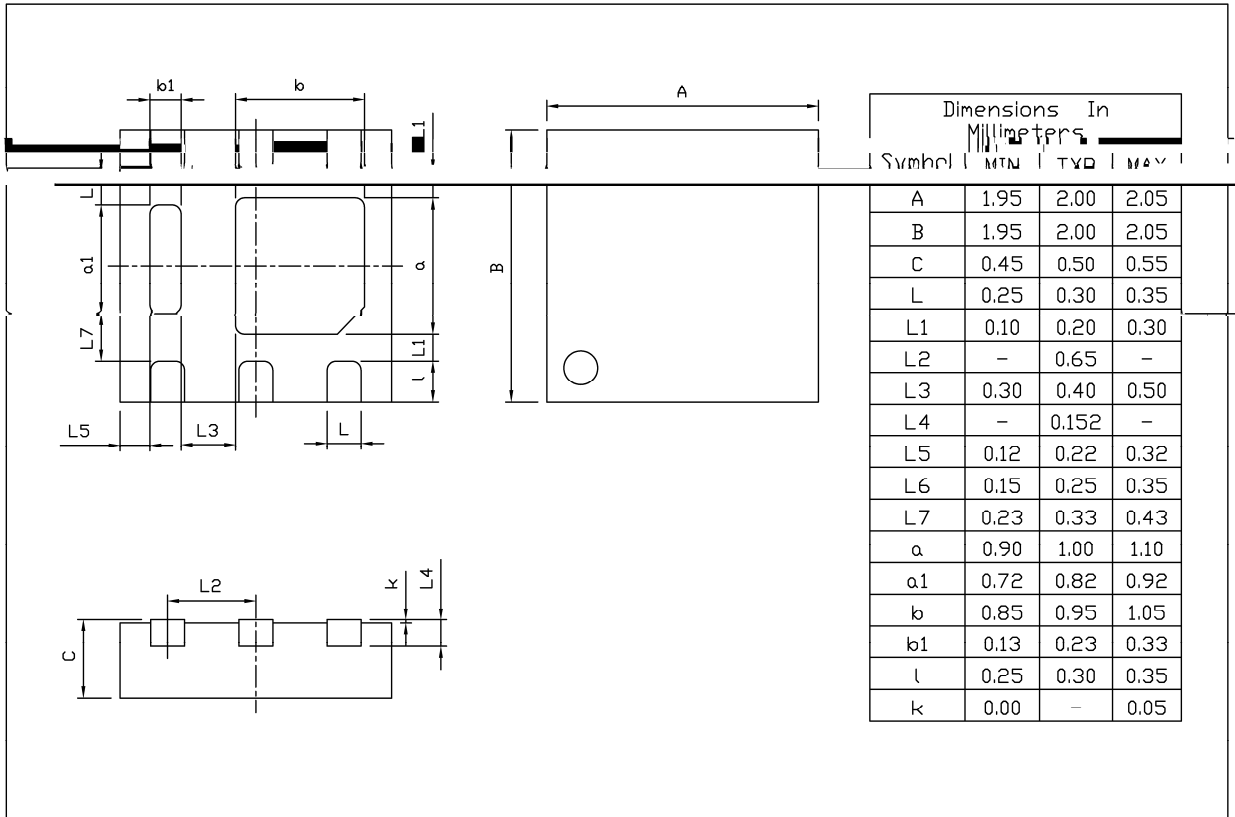
Electrical Characteristic Curve



/ Package Dimensions

DFN2 x2B-6L-0.5

Unit:mm



Rev.01 202006

/ Marking Instructions



BR

200P02

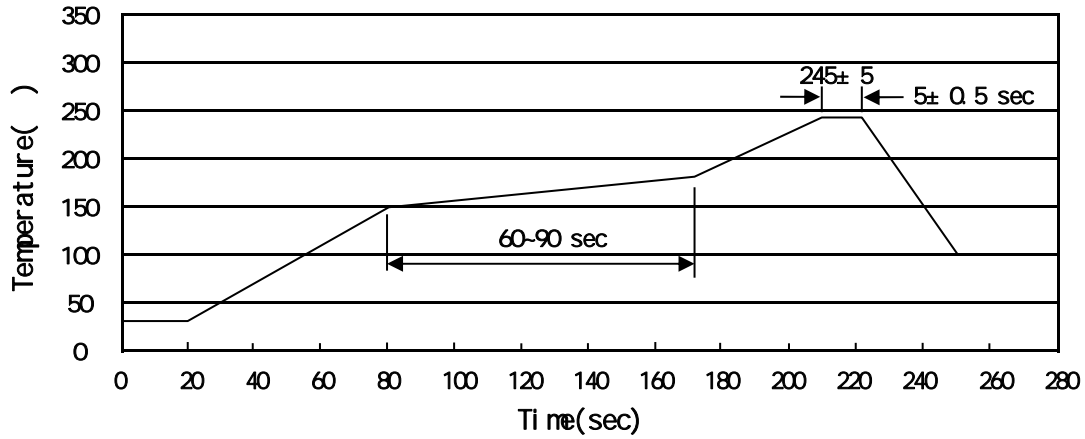
Note:

BR: Company Code

200P02: Product Type Code

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

() /



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 Conditions

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

/ Packaging SPEC.

/ REEL

| Package Type | Units | | | | | Dimension (unit mm ³) | | |
|--------------|------------|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|-------------|-------------|
| | Units/Reel | Reels/Inner Box | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box | Reel | Inner Box | Outer Box |
| DFN2x2B-6L | 4,000 | 10 | 40,000 | 4 | 160,000 | 7 x8 | 210x205x205 | 445x435x230 |

/ Notices