# BRCS20P04DP

Rev.B Jul.-2018

**DATA SHEET**

## / Descriptions

TO-252 P MOS P-CHANNEL MOSFET in a TO-252 Plastic Package.

## / Features

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Low gate charge, low crss, fast switching.

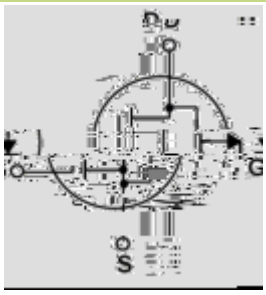
## / Applications

DC/DC

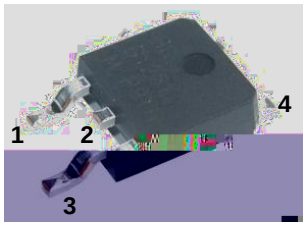
Suited for low voltage applications such as automotive,DC/DC Converters,and high efficiency

switching for power management in protable and battery operated products.

## / Equivalent Circuit



## / Pinning



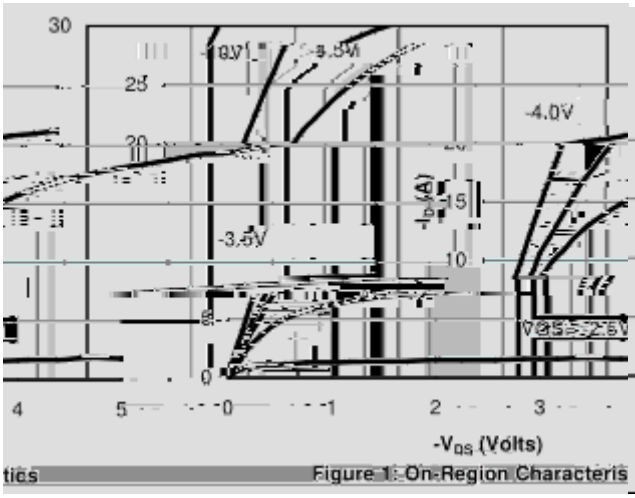

PIN1 G PIN 2 D PIN 3 S PIN 4 D

## / $h_{FE}$ Classifications & Marking

See Marking Instructions.

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|

## / Electrical Characteristic Curve




tics Figure 1: On-Region Characteris

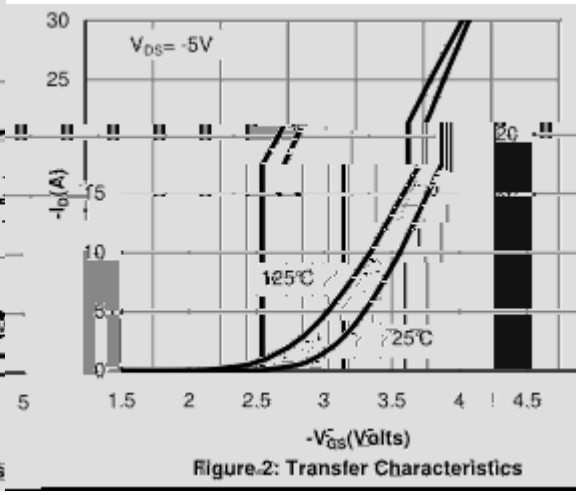



Figure 2: Transfer Characteristics

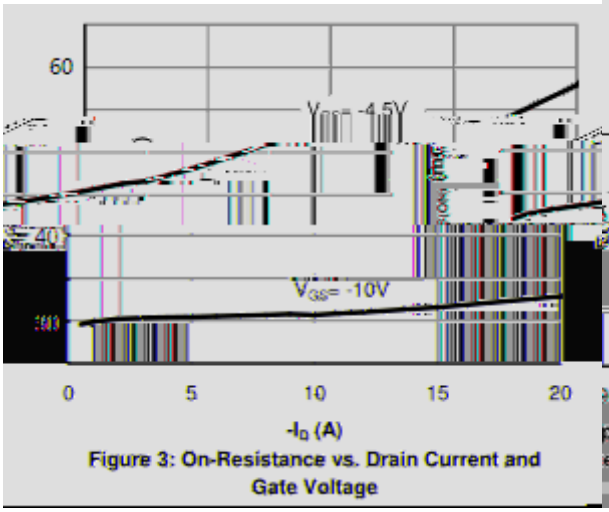
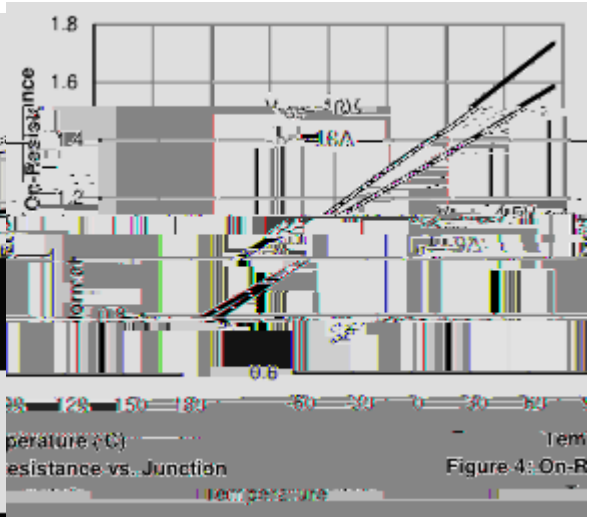
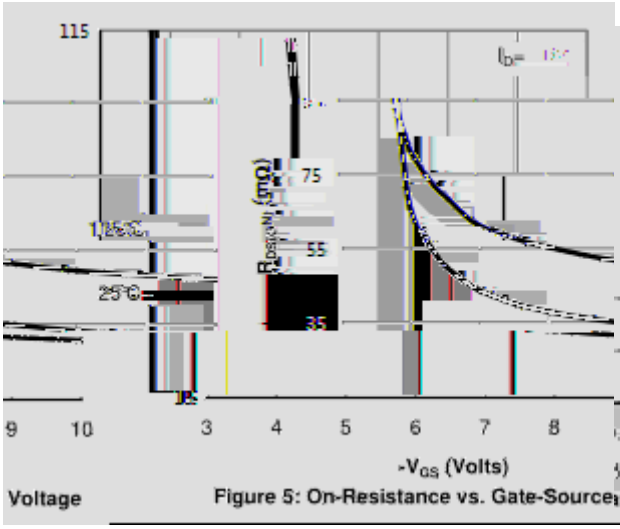


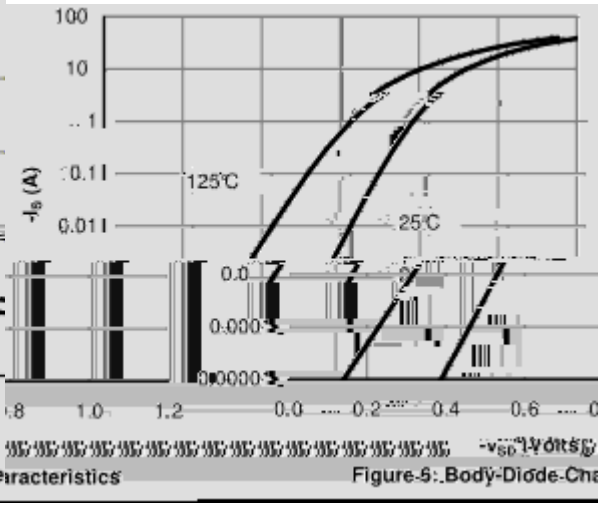

**Figure 3: On-Resistance vs. Drain Current and Gate Voltage**




esistance vs. Junction Figure 4: On-R

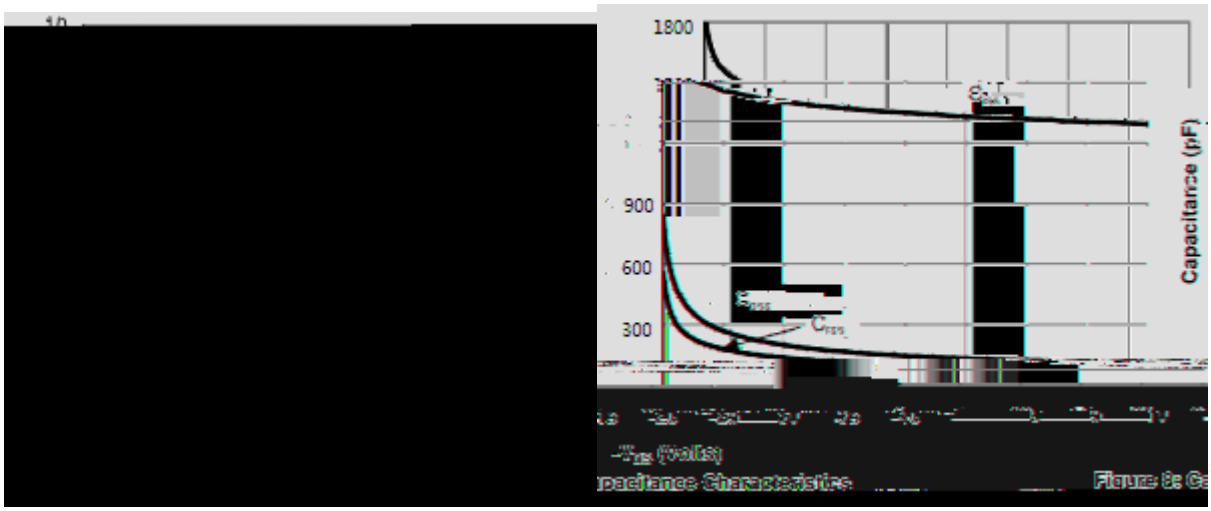



Voltage Figure 5: On-Resistance vs. Gate-Source




aracteristics Figure 6: Body-Diode-Cha

## / Electrical Characteristic Curve




Capacitance Characteristics Figure 8: Ca

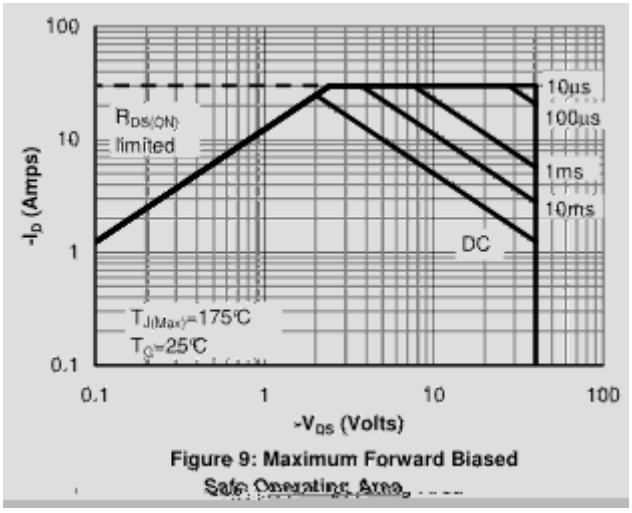
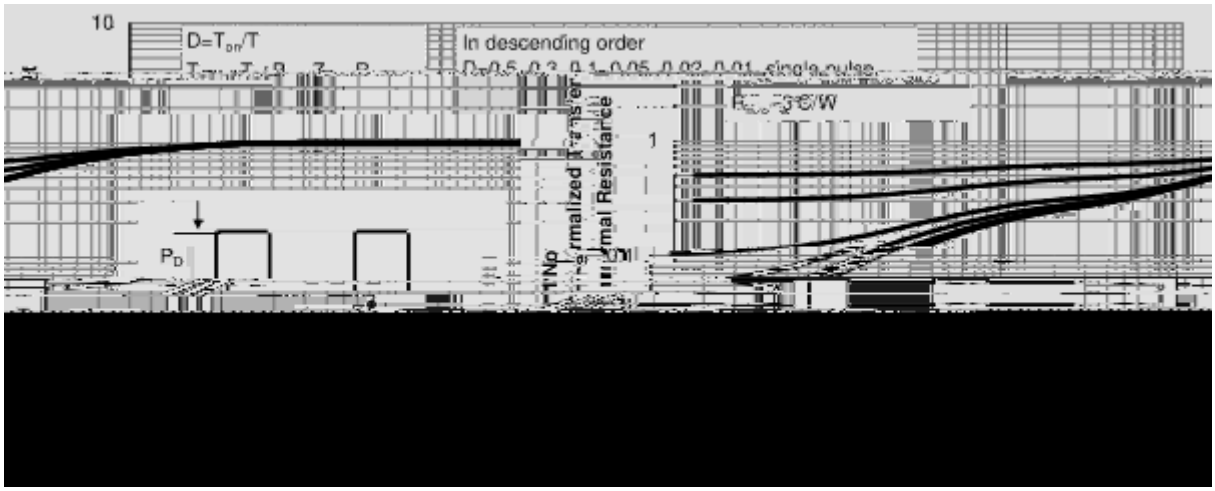



**Figure 9: Maximum Forward Biased Safe Operating Area**

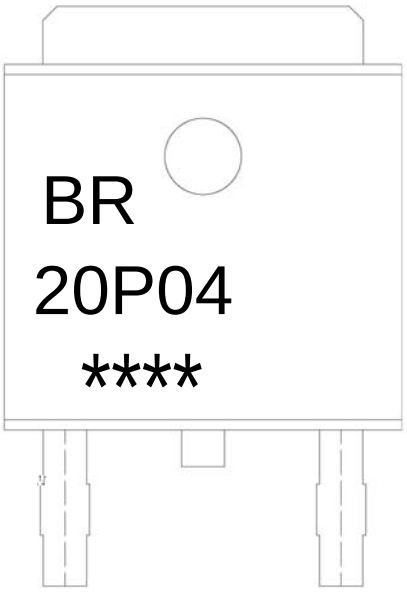


## / Package Dimensions






## / Marking Instructions




BR

20P04

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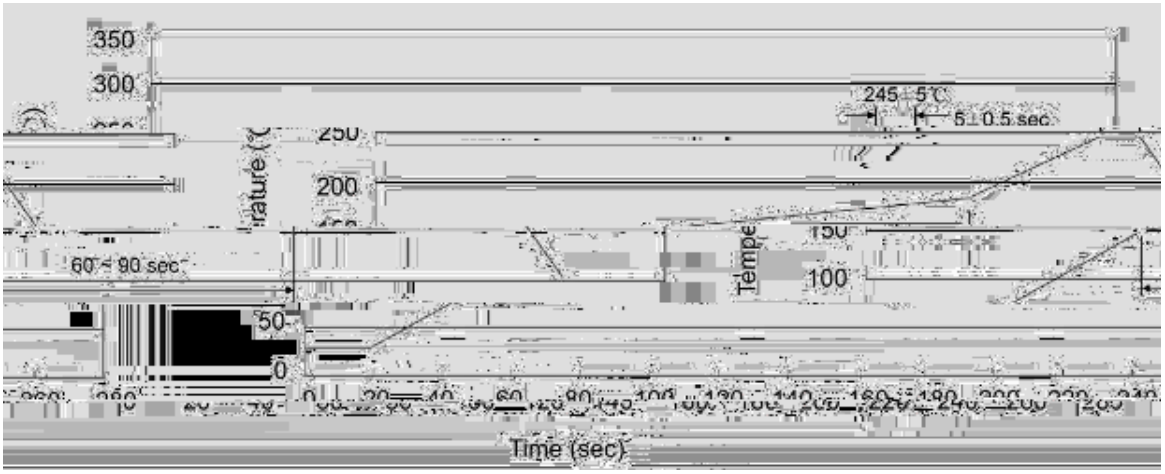
Note:

| | |
|---|---|
| BR: | Company Code |
| 20P04: | Product Type. |
| ****: | Lot No. Code, code change with Lot No. |

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




| | | | |
|---|---|---|---|
| 1 | 150 158 | 60 90sec; | Note: 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 |
| TO-252 | 2,500 | 2 | 5,000 | 5 | 25,000 | 13 ×16 | 360×360×50 | 385×257×392 |

### / TUBE

| Package Type | Units | | | | | Dimension (unit mm$^3$) | | |
|---|---|---|---|---|---|---|---|---|
| | Units/Tube / | Tubes/Inner Box / | Units/Inner Box / | Inner Boxes/Outer Box / | Units/Outer Box / | Tube | Inner Box | Outer Box |
| TO-251/252 | 75 | 48 | 3,600 | 5 | 18,000 | 526×20.5×5.25 | 555×164×50 | 575×290×180 |

## / Notices