

BRC5022N06SZC-58

Rev.A Aug.-2025

/ Descriptions

PDFN5² 6 N

N-Channel MOSFET in a PDFN5x6 Plastic Package.

$V_{DS}(V)=60V$ $I_D=80A$

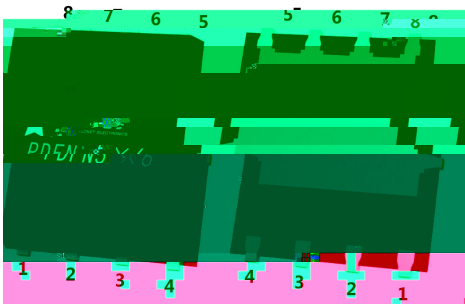
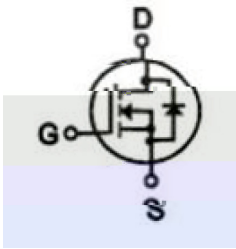
$R_{DS(ON)}@10V$ 2.2m (Typ.2.0m)

$R_{DS(ON)}@6V$ 3.2m (Typ.2.5m)

HF Product.

应用：电机驱动、DC-DC转换器

Motor drivers, DC - DC Converter.



PIN1 2 3 S PIN4 G PIN5 6 7 8 D

/ Marking

See Marking Instructions.

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DATA SHEET

| Parameter | Symbol | Rating | Unit |
|---------------------------------------------------------|-----------------------------|------------|------|
| Drain-Source Voltage | V_{DS} | 60 | V |
| Continuous Drain Current* | $I_D(T_c=25^\circ\text{C})$ | 80 | A |
| Pulsed Drain Current*,**,*** | I_{DM} | 209 | A |
| Gate-Source Voltage | V_{GS} | ± 20 | V |
| Power Dissipation | $P_D(T_c=25^\circ\text{C})$ | 156 | W |
| Junction and Storage Temperature Range | T_j, T_{stg} | -55 to 175 | |
| Continuous-Source Current | I_S | 80 | A |
| Single Pulsed Avalanche Energy $V_{DD}=50V, L=0.5mH$ | E_{AS} | 506 | mJ |
| Maximum Junction-to-Ambient* | R_{JA} | 38 | / W |
| Maximum Junction-to-Case* | R_{JC} | 1.1 | |

Notes

* Surface Mounted on 1 in² pad area, t = 10 sec

** Pulse width = 300 μ s, duty cycle = 2 %

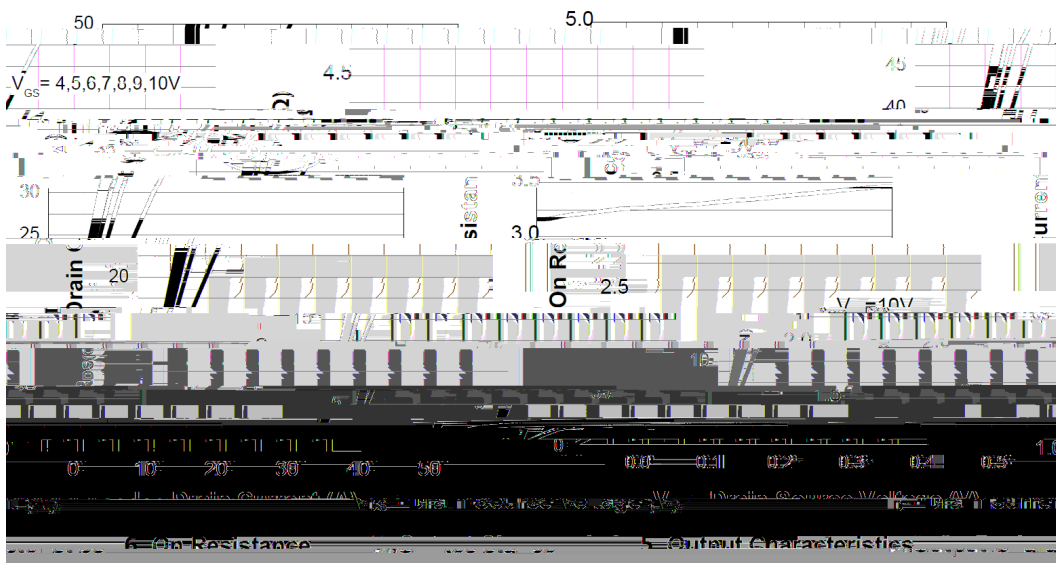
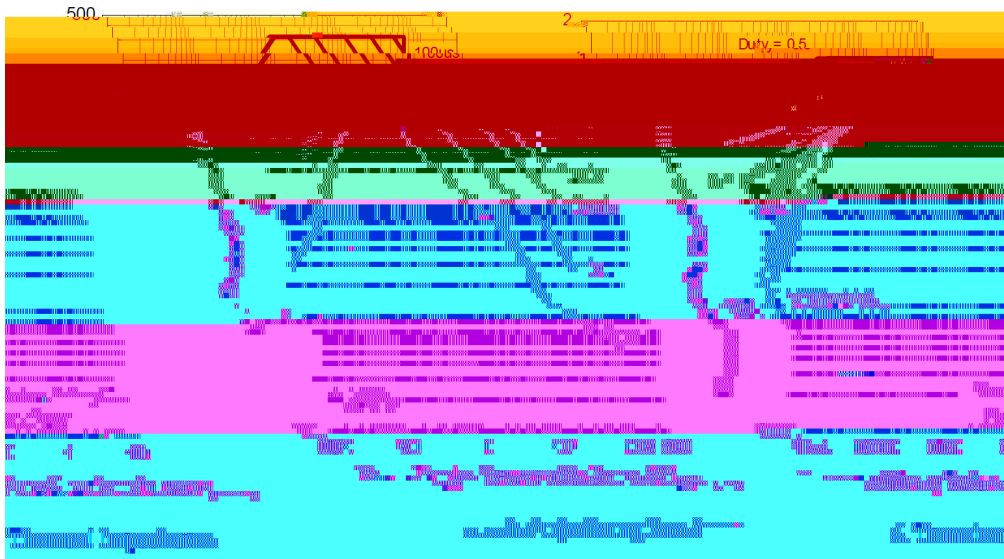
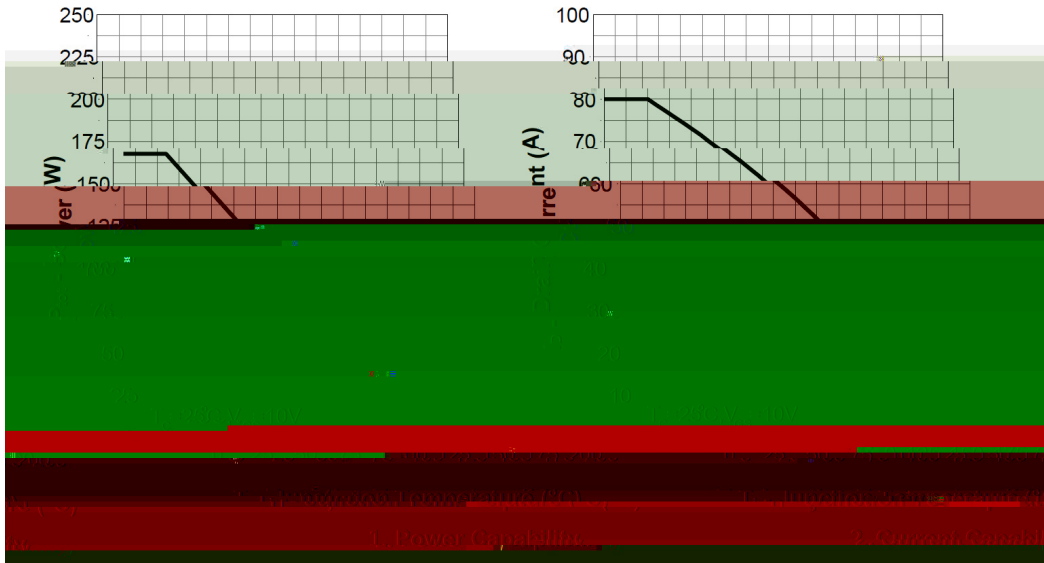
*** Limited by bonding wire

Parameter Symbol Test Conditions

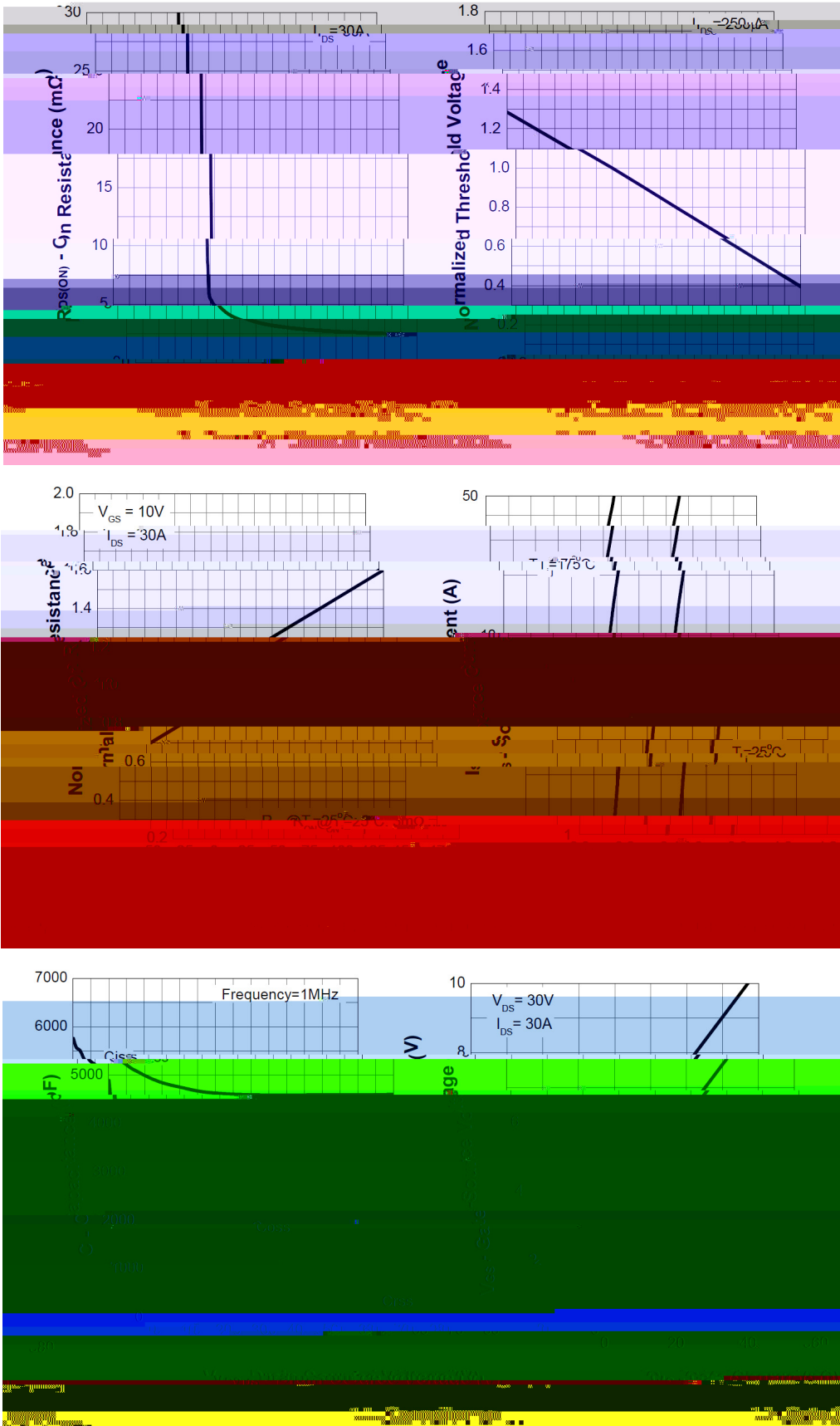
/ Electrical Characteristics(Ta=25)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------|--------------|-----------------------------------------------------------------|-----|-----|-----|------|
| Total Gate Charge | Q_g | $V_{GS}=10V$ $V_{DS}=30V$ $I_D=30A$ | | 83 | | nC |
| Gate Source Charge | Q_{gs} | | | 16 | | |
| Gate Drain Charge | Q_{gd} | | | 13 | | |
| Turn-On Delay Time | $t_{d(on)}$ | $V_{GEN}=10V$ $V_{DS}=30V$ $I_{DS}=30A$ $R_G=4.5$ $R_L=1$ | | 22 | | ns |
| Turn-On Rise Time | t_r | | | 21 | | |
| Turn-Off Delay Time | $t_{d(off)}$ | | | 60 | | |
| Turn-Off Fall Time | t_f | | | 15 | | |

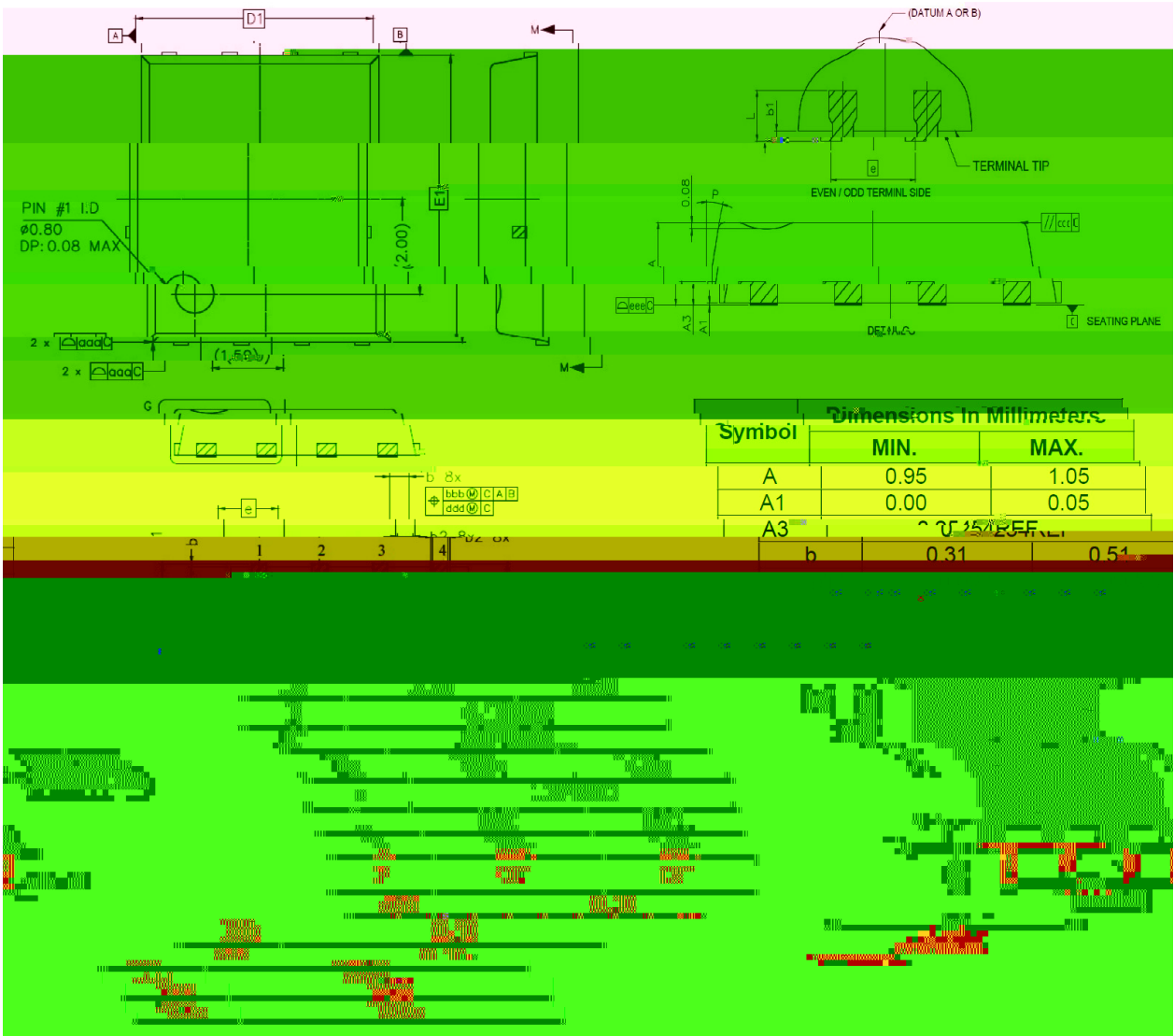
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



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022N06S

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Note:

BR: Company Code

022N06S: Product Type Code

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

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