

BRC5700P10DP

Rev.C Aug.-2023

/ Descriptions

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

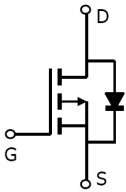
/ Features

$V_{DS}(V)=-100V$ $I_D=-22A$
 $R_{DS(ON)}@-10V<70m$ (Typ.67mR)
 $R_{DS(ON)}@-4.5V<85m$ (Typ.70mR)
HF Product.

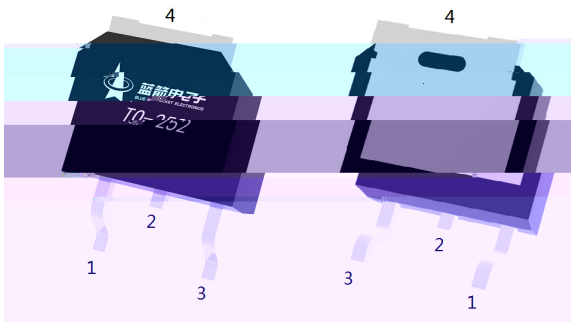
/ Applications

DC/DC
Power Management of Industrial DC/DC Converter.

/ Equivalent Circuit



/ Pinning



PIN1 G PIN 2 D PIN 3 S PIN 4 D

/ Marking

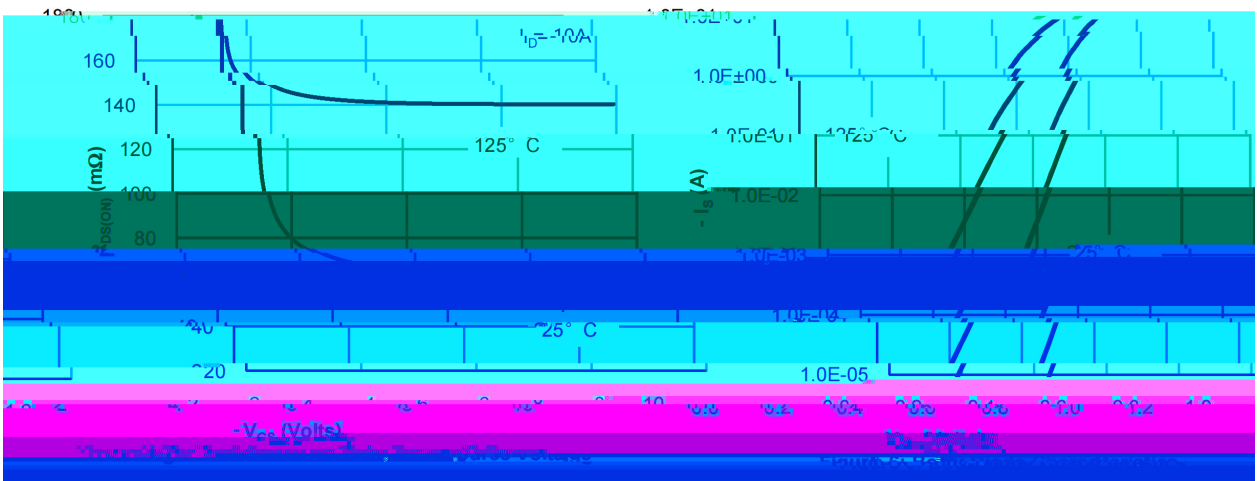
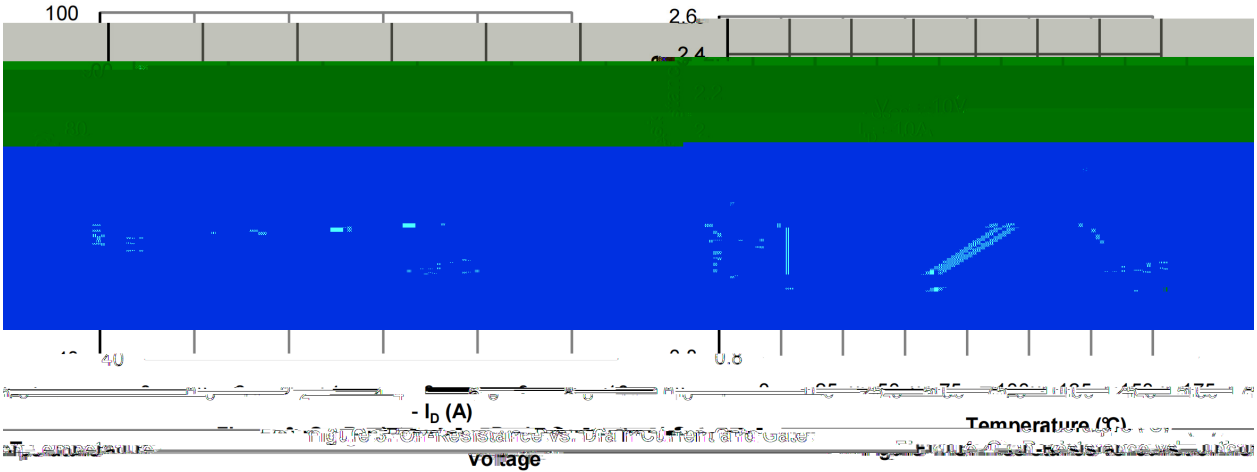
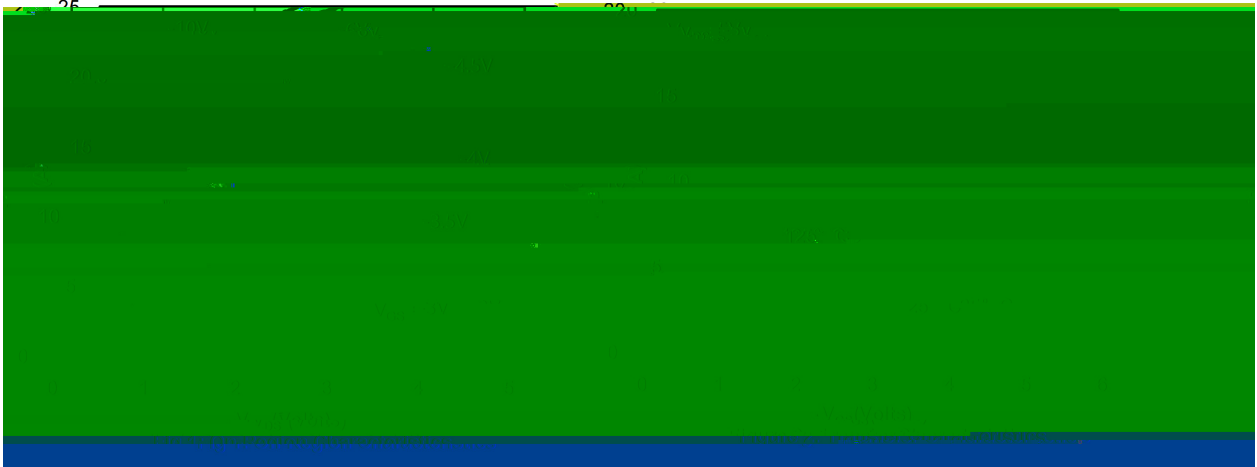
See Marking Instructions.

| Parameter | Symbol | Rating | Unit |
|--|-----------------------|--------|------|
| | V_{DS} | -100 | V |
| Drain Current - Continuous | $I_D(T_c=25^\circ C)$ | -22 | A |
| Drain Current - Pulsed | I_{DM} | -66 | A |
| Gate-Source Voltage | V_{GS} | + 20 | V |
| Power Dissipation | $P_D(T_c=25^\circ C)$ | 75 | W |
| Single Pulse Avalanche Energy($I_L=0.5mA$) | E_{AS} | 176.4 | mJ |
| Avalanche Current | | | |

/ Electrical Characteristics(Ta=25)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------|--------------|---|-----|-----|-----|------|
| Turn-On Delay Time | $t_{d(on)}$ | $V_{GS}=-10V$ $V_{DS}=-50V$ $R_L=10$ $R_{GEN}=3$ | | 6 | | ns |
| Turn-On Rise Time | t_r | | | 2.4 | | |
| Turn-Off Delay Time | $t_{d(off)}$ | | | 19 | | |
| Turn-Off Fall Time | t_f | | | 2.6 | | |

/ Electrical Characteristic Curve



/ Electrical Characteristic Curve

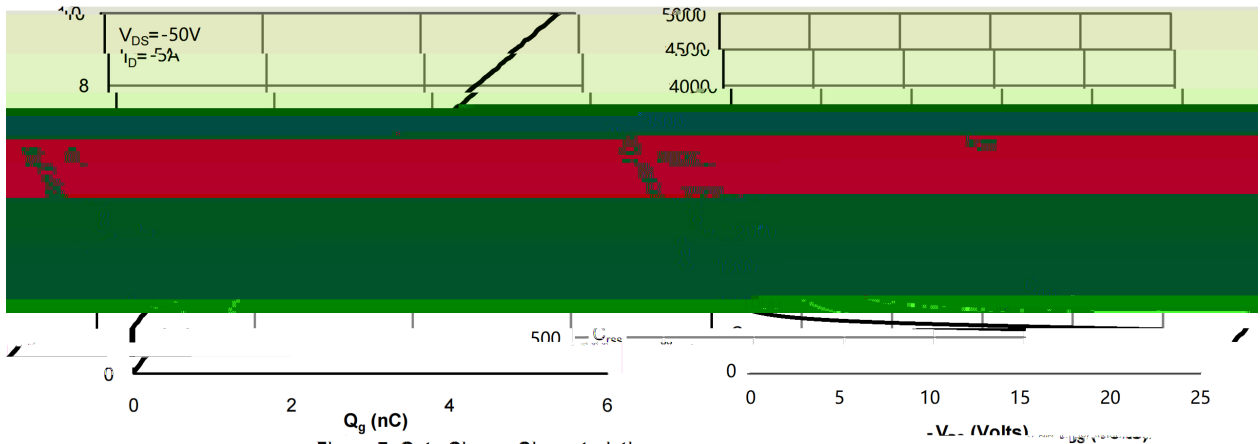
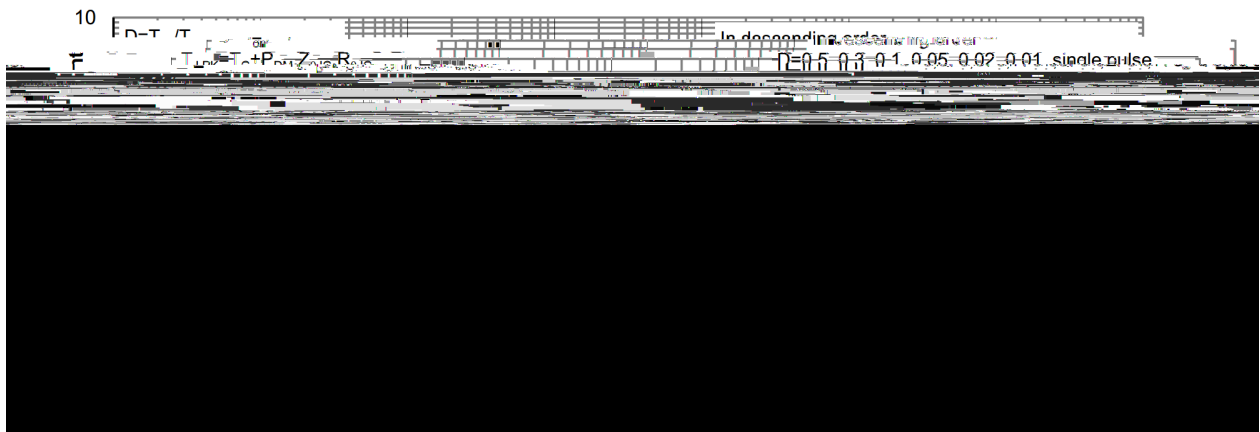
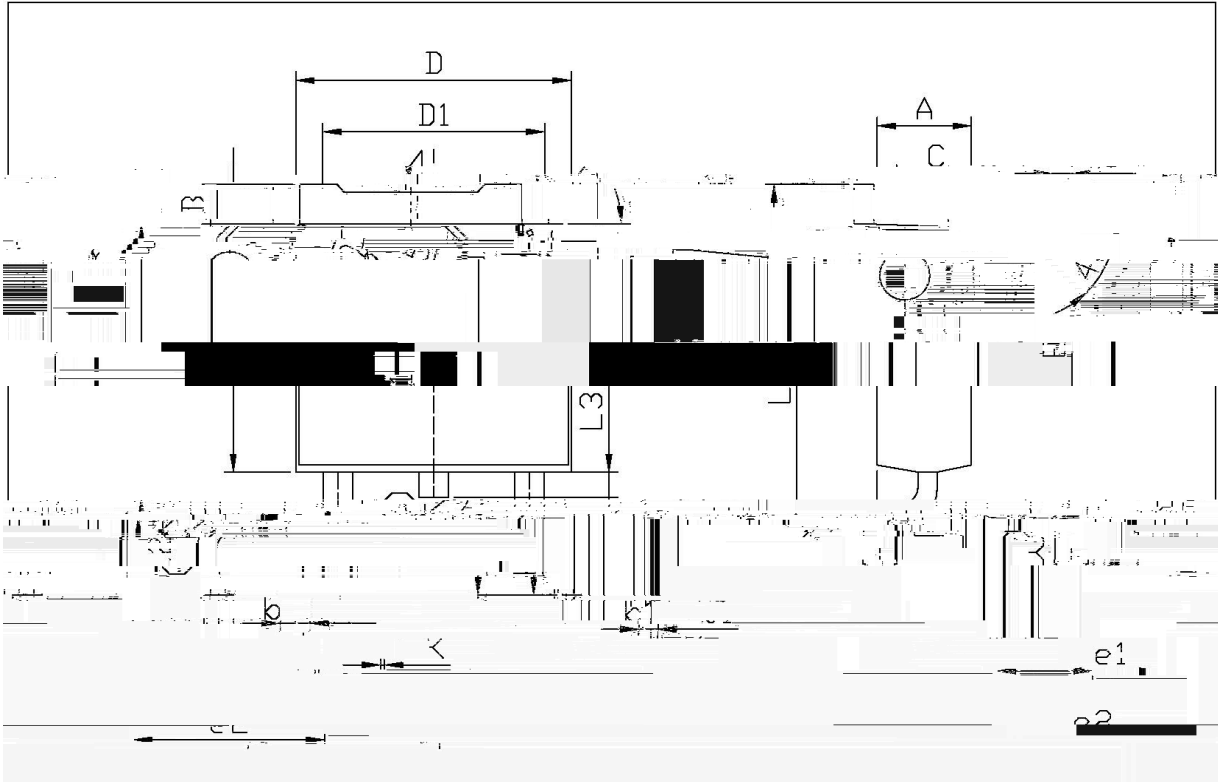


Figure 7: Gate Charge Characteristics



/ Package Dimensions

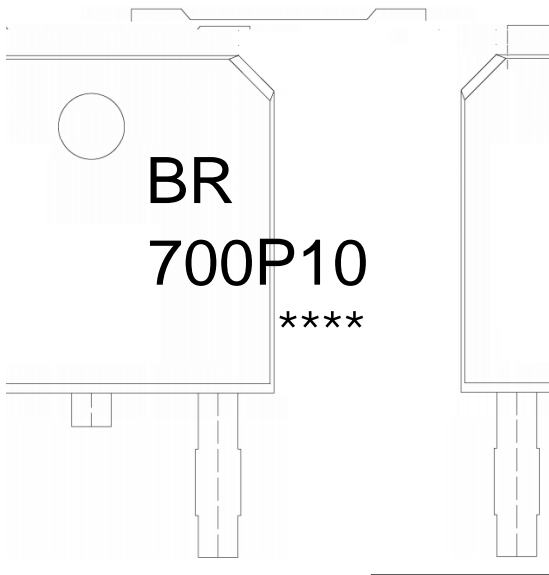


单位: mm

| Dimensions, Millimeters | | Dimensions, In Millimeters | |
|-------------------------|------|----------------------------|------|
| Min | Max | Min | Max |
| 0.95 | 1.25 | e1 | 2.24 |
| 0.70 | 0.90 | 1.93 | 2.34 |
| 0.45 | 0.55 | 0.85 | 1.03 |
| 0.00 | 0.15 | 0.55 | 0.70 |
| 0.50 | 0.60 | D1 | 5.90 |
| | | 5.50 | 5.50 |

TO-252

/ Marking Instructions



BR

700P10

Note:

BR: Company Code

700P10: Product Type

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

BRCS700P10DP