

BRC350P04YM

Rev.A Oct.-2024



DATA SHEET

PDFN5 6A P

Dual P-CHANNEL MOSFET in a PDFN5x6A Plastic Package.

$V_{DS}(V)=-40V$ $I_D=-20A$

$R_{DS(ON)}@-10V<35\text{ m}$ (Typ. 33 m)

$R_{DS(ON)}$

BRCS350P04YM

Rev.A Oct.-2024



DATA SHEET

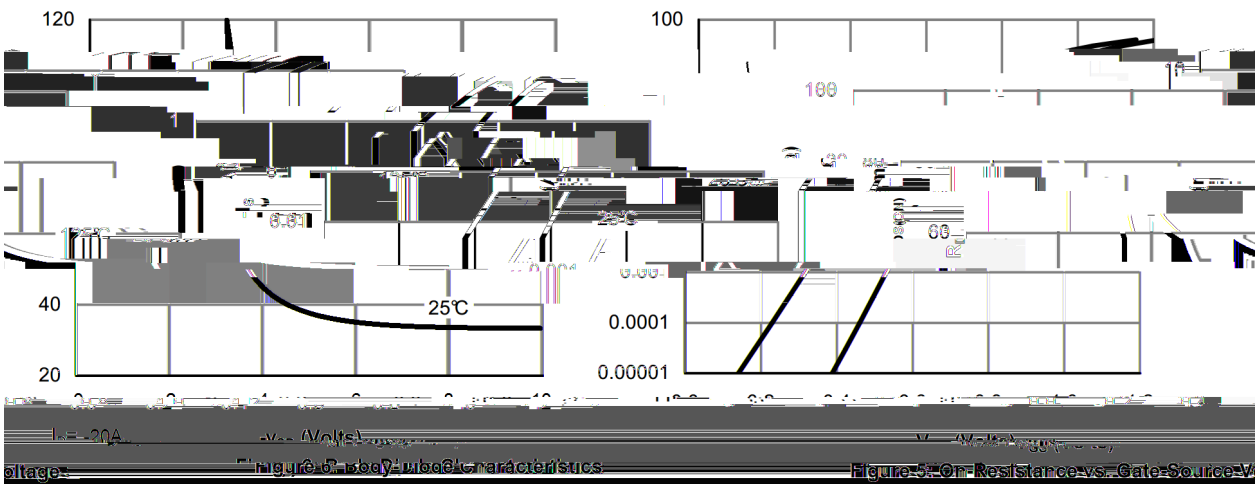
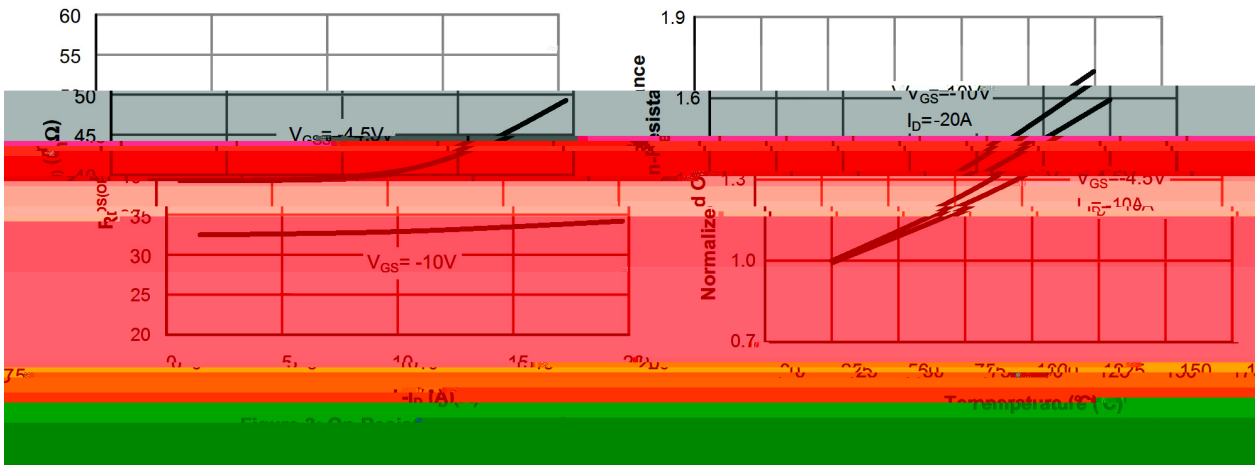
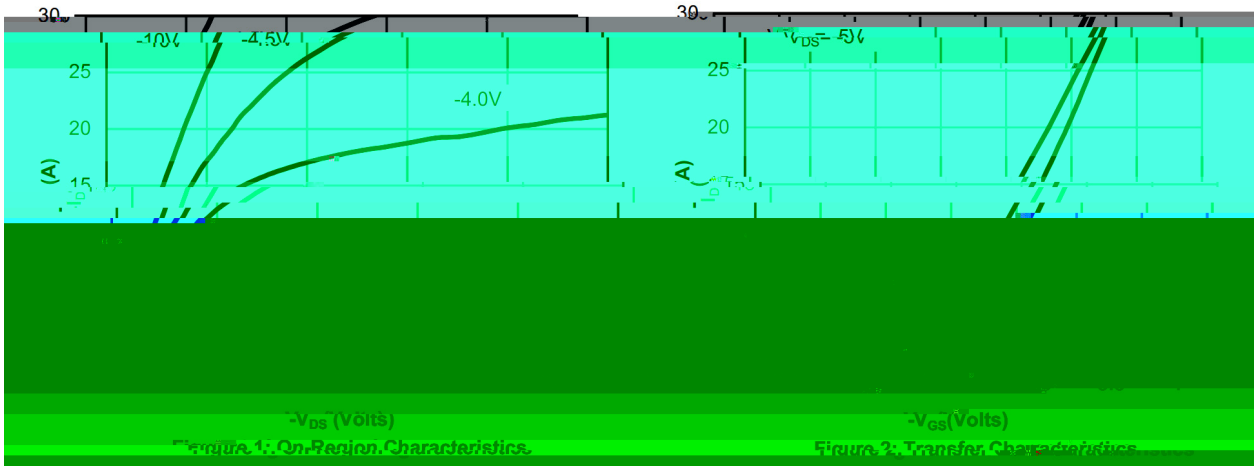
| Parameter | | Symbol | Rating | Unit |
|---|---------------------|-----------------------------|-----------|------|
| Drain-Source Voltage | | V_{DSS} | -40 | V |
| Drain Current | | $I_D(T_C=25^\circ\text{C})$ | -20 | A |
| Drain Current - Pulsed | | I_{DM} | -46 | A |
| Gate-Source Voltage | | V_{GS} | ± 20 | V |
| Avalanche Current | | I_{AS} | 13 | A |
| Single Pulsed Avalanche Energy $\tau \sim L=0.5\text{mH}$ | | E_{AS} | 54 | mJ |
| Power Dissipation | | P_D | 25 | W |
| Storage Temperature Range | | T_{stg} | -55 ~ 150 | |
| Thermal Resistance-Junction to Ambient | $t \leq 10\text{s}$ | $R_{\theta JA}$ | 40 | /W |
| | Steady-State | | 62.5 | |
| Thermal Resistance-Junction to Case | Steady-State | $R_{\theta JC}$ | 5 | /W |

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|------------------------------------|--------------|--|------|------|-----------|------|
| Drain-Source Breakdown Voltage | BV_{DSS} | $V_{GS}=0V$ $I_D=-250\text{A}$ | -40 | -46 | | V |
| Zero Gate Voltage Drain Current | I_{DSS} | $V_{DS}=-40V$ $V_{GS}=0V$ | | | 1.0 | A |
| Gate-Body Leakage Current Forward | I_{GSS} | $V_{GS}=\pm 20V$ $V_{DS}=0V$ | | | ± 0.1 | A |
| Gate Threshold Voltage | $V_{GS(th)}$ | $V_{DS}=V_{GS}$ $I_D=-250\text{A}$ | -1.0 | -1.4 | -2.5 | V |
| Static Drain-Source On-Resistance | $R_{DS(on)}$ | $V_{GS}=-10V$ $I_D=-20A$ | | 33 | 35 | m |
| | | $V_{GS}=-4.5V$ $I_D=-10A$ | | 40 | 60 | |
| Drain-Source Diode Forward Voltage | V_{SD} | $V_{GS}=0V$ $I_S=-1A$ | | | -1.2 | V |
| Gate resistance | R_g | $V_{GS}=0V$ $V_{DS}=0V$, $f=1\text{MHz}$ | | 9.5 | | |
| Input Capacitance | C_{iss} | $V_{DS}=-25V$ $V_{GS}=0V$ $f=1.0\text{MHz}$ | | 1500 | | pF |
| Output Capacitance | C_{oss} | | | 620 | | |
| Reverse Transfer Cap | | | | | | |

/ Electrical Characteristics(Ta=25)

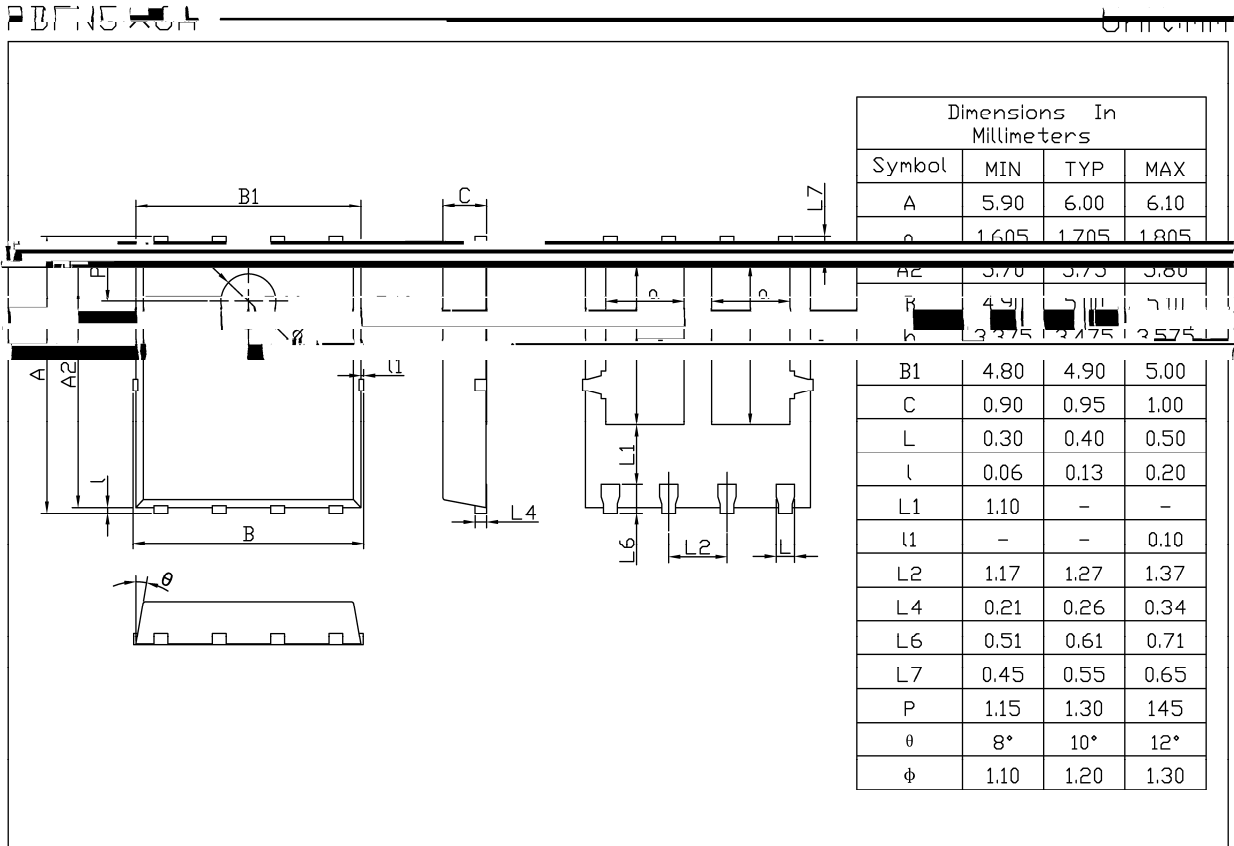
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------|--------------|--|-----|------|-----|------|
| Turn-On Delay Time | $t_{d(on)}$ | $V_{GS}=-10V$ $V_{DS}=-20V$ $R_L=1.6 \Omega$ $R_{GEN}=3 \Omega$ | | 6.5 | | ns |
| Turn-On Rise Time | t_r | | | 9.2 | | |
| Turn-Off Delay Time | $t_{d(off)}$ | | | 52 | | |
| Turn-Off Fall Time | t_f | | | 50.8 | | |

/ Electrical Characteristic Curve



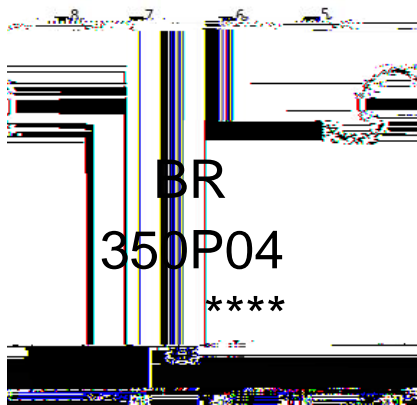
BRCS350P04YM
Rev.A Oct.-2024

/ Package Dimensions



Rev.01 202209

/ Marking Instructions



350P04

Note

BR Company Code

350P04 Product Type Code

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

