

/ Descriptions

SOT23-3 P MOS P- CHANNEL MOSFET in a SOT23-3 Plastic Package.

/ Features

$V_{DS}(V) = -30V$

$I_D = -4.2 A (V_{GS} = -10V)$

$R_{DS(ON)} < 60m \quad (V_{GS} = -10V)$

$R_{DS(ON)} < 65m \quad (V_{GS} = -4.5V)$

$R_{DS(ON)} < 120m \quad (V_{GS} = -2.5V)$

AEC-Q101

Qualified to AEC-Q101 Standards for High

Reliability, HF Product.

/ Applications

This device is suitable for use as a load switch or in PWM applications, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit**/ Pinning**

PIN1 G PIN 2 S PIN 3 D

/ Marking

Marking

QB1H

$@ f$ Parameter	$\dots Z$ Symbol	$f >$ Rating	$\% y$ Unit
Drain-Source Voltage	V_{DS}		

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Capacitance	C_{iss}	$V_{DS}=-15V$ $V_{GS}=0V$ $f=1MHz$		957		pF
Output Capacitance	C_{oss}			115		
Reverse Transfer Capacitance	C_{rss}			77		
Gate resistance	R_g	$V_{GS}=0V$ $V_{DS}=0V$, $f=1MHz$		6		
Total Gate Charge	Q_g	$V_{GS}=-4.5V$ $V_{DS}=-15V$ $I_D=-4A$		9.4		nC
Gate Source Charge	Q_{gs}			2		
Gate Drain Charge	Q_{gd}			3		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-10V$ $R_L=3.6$ $V_{DS}=-15V$ $R_{GEN}=6$		6.3		ns
Turn-On Rise Time	t_r			3.2		
Turn-Off Delay Time	$t_{d(off)}$			38.2		
Turn-Off Fall Time	t_f			12		
Body Diode Reverse Recovery Time	t_{rr}	$I_F=-4A$, $dI/dt=100A/s$		20.2		ns
Body Diode Reverse Recovery Charge	Q_{rr}	$I_F=-4A$, $dI/dt=100A/s$		11.2		nC

A: The value of R_{JA} is measured with the device mounted on 1in² FR-4 board with 2oz. Copper, in a still air environment with $T_A=25^{\circ}C$. The value in any given appl

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Ø □ =) ¢ / Package Dimensions

BRCS3401MCQ

Rev.A Jun.-2022

DATA SHEET

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0 -10006e W 5280758.98 62m h 537.7858.98 62.4(06 -10006e W 5336 258.98 62m W* q 0 8418 62595.-698418 6

