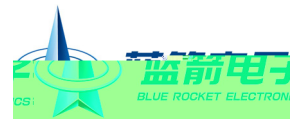


BRCS200P012MF

Rev.A Dec.-2023



DATA SHEET

SOT23-6 P MOS

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

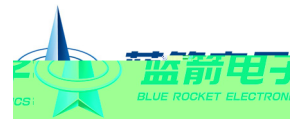
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	-12	V
Gate-Source Voltage	V_{GSS}	± 8	V
Continuous Drain Current	$I_D(T_C=25^\circ\text{C})$	-8.0	A
Pulsed Drain Current	I_{DM}	-25	A
Power Dissipation for Single Operation	$P_D(T_C=25^\circ\text{C})$	1.8	W
Maximum Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	125	/W
Thermal Resistance-Junction to Case	$R_{\theta JC}$	69	/W

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D=-250\mu\text{A}$ $V_{GS}=0\text{V}$	-12	-17.5		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-12\text{V}$ $V_{GS}=0\text{V}$			-1.0	μA
Gate-Body leakage current	I_{GSS}	$V_{DS}=0\text{V}$ $V_{GS}=\pm 8\text{V}$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250\mu\text{A}$	-0.5	-0.6	-1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=-10\text{V}$ $I_D=-3.0\text{A}$		18	20	m Ω
		$V_{GS}=-4.5\text{V}$ $I_D=-3.0\text{A}$		21	25	
		$V_{GS}=-2.5\text{V}$ $I_D=-2.0\text{A}$		27	30	
		$V_{GS}=-1.8\text{V}$ $I_D=-1.0\text{A}$		40	50	
Diode Forward Voltage	V_{SD}	$I_S=-1\text{A}$ $V_{GS}=0\text{V}$			-1.2	V
Gate resistance	R_g	$V_{GS}=0\text{V}$, $V_{DS}=0\text{V}$, $f=1\text{MHz}$		14		Ω
Input Capacitance	C_{iss}	$V_{GS}=0\text{V}$ $V_{DS}=-6\text{V}$ $f=1\text{MHz}$		1700		pF
Output Capacitance	C_{oss}			580		
Reverse Transfer Capacitance	C_{rss}			250		

BRCS200P012MF

Rev.A Dec.-2023



DATA SHEET

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=-4.5V$ $V_{DS}=-6V$ $I_D=-8A$				

/ Electrical Characteristic Curve

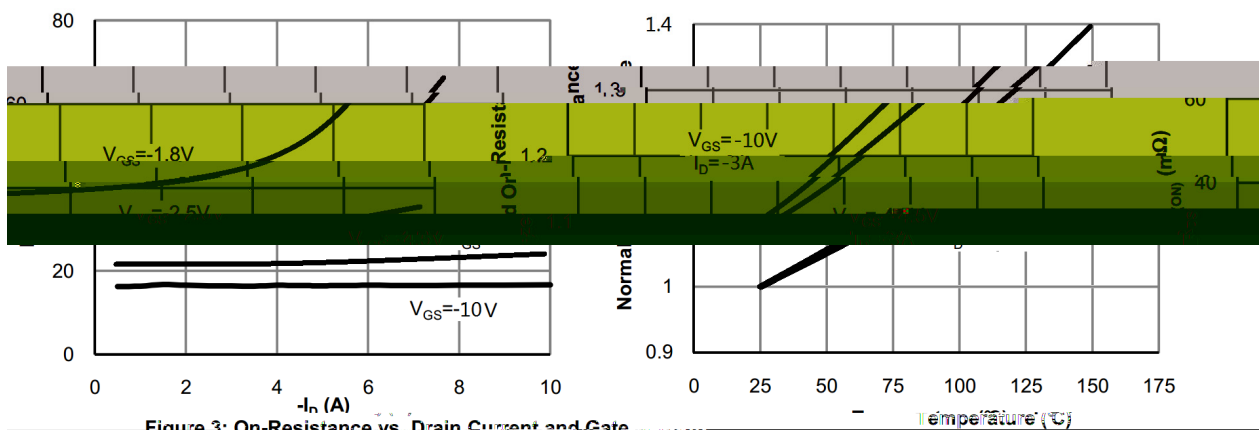
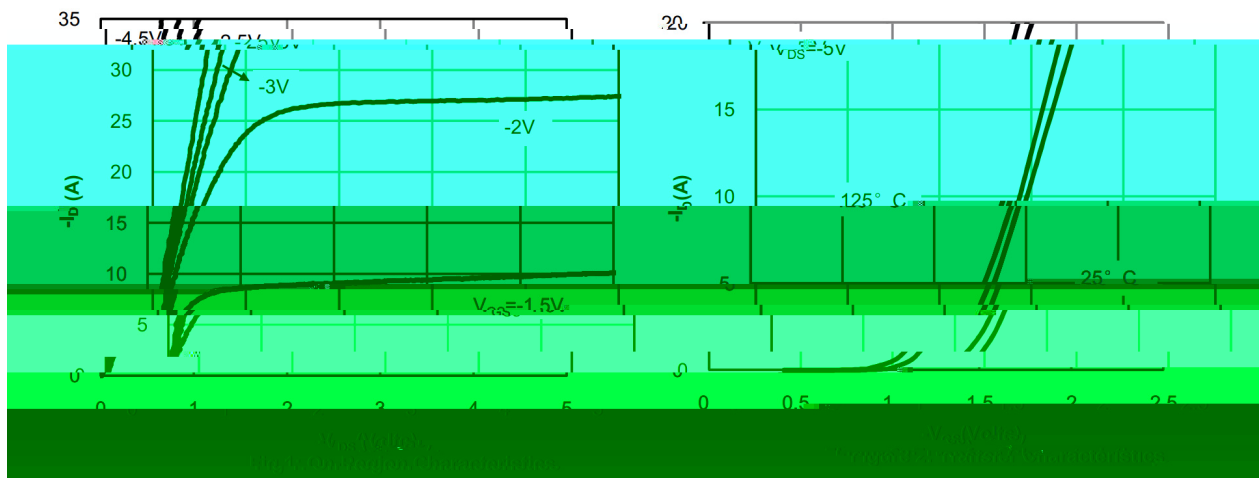


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

Figure 4: On-Resistance vs. Junction Temperature

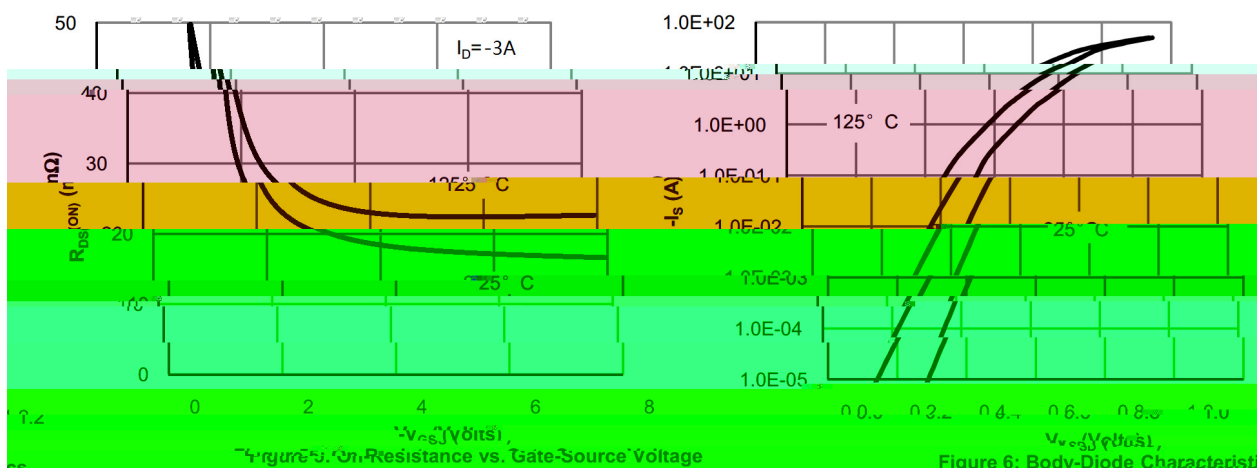


Figure 5: On-Resistance vs. Gate-Source Voltage

Figure 6: Body-Diode Characteristics

/ Electrical Characteristic Curve

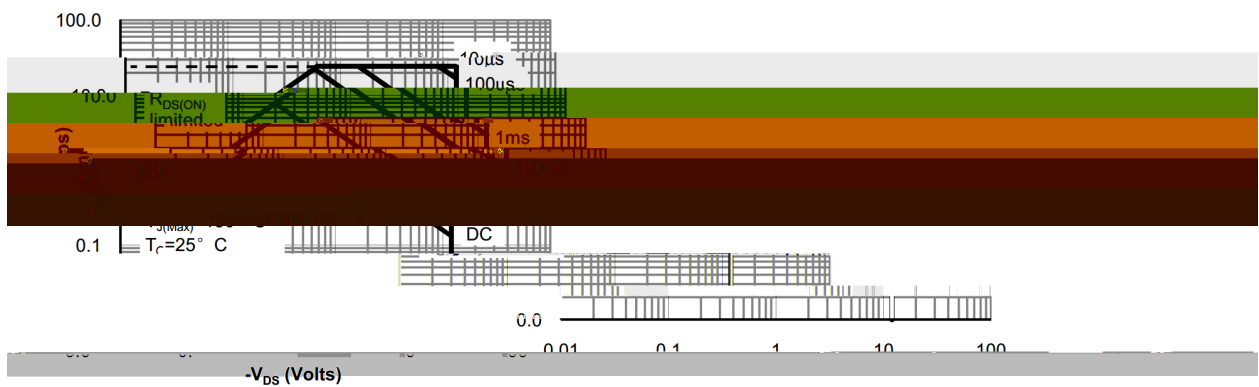
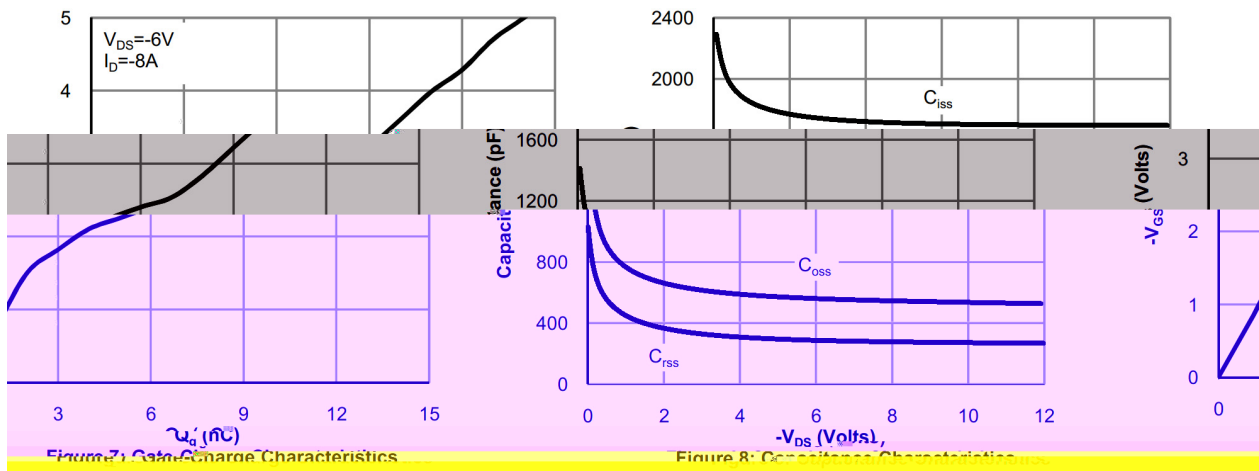


Figure 9: Maximum Forward Biased Safe Operating Area

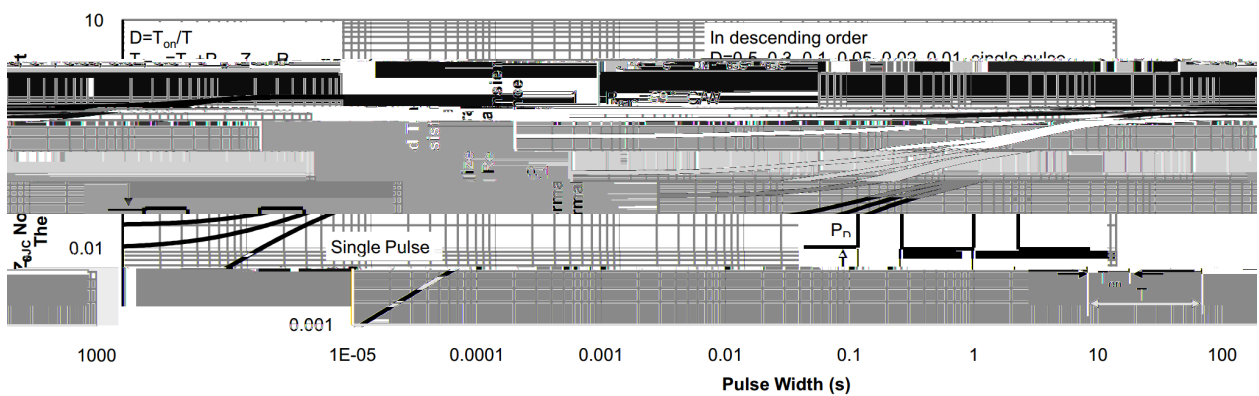
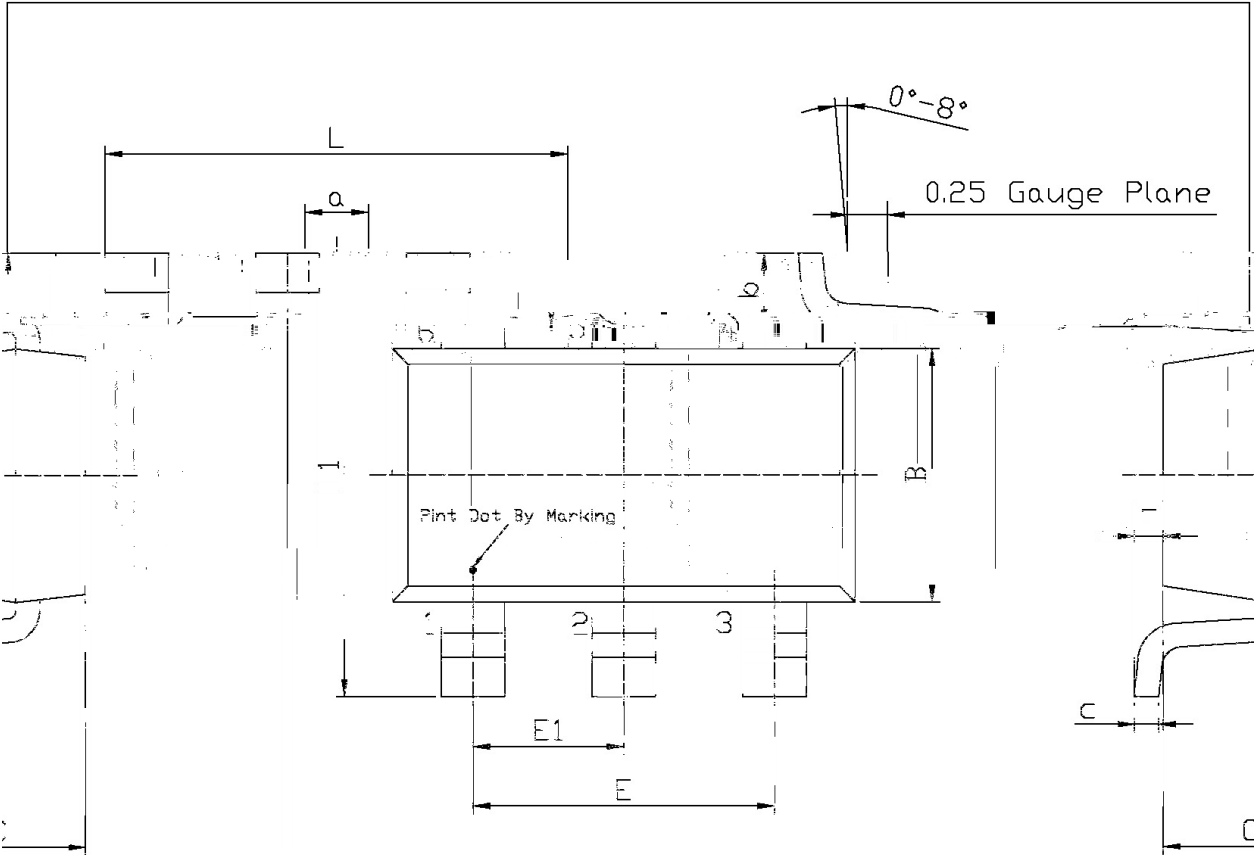


Figure 10: Normalized Maximum Thermal Impedance

/ Package Dimensions

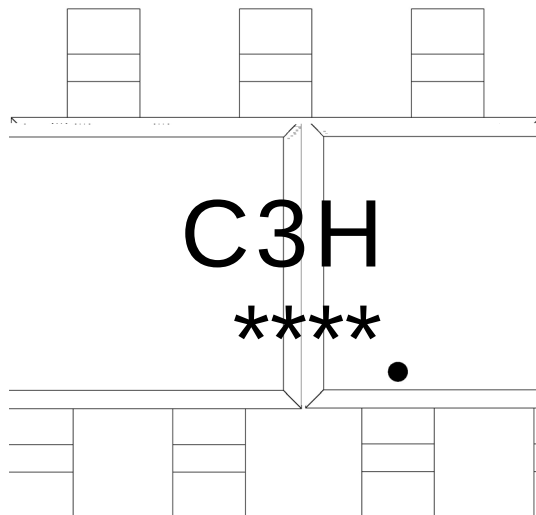


mm
tens
x
5
0
0
5
5

Dimensions In Millimeters			Un		
Symbol	Min	Max	Symbol	Min	Ma
L	2.82	3.32	E1	0.85	1.0
B	1.50	1.70	a	0.35	0.5
C	0.90	1.30	c	0.10	0.2
L1	2.60	3.00	b	0.35	0.5
E	1.80	2.00	F	0	0.1

SOT23-6

/ Marking Instructions



C3

H

Note:

C3: Product Type Code

H: Company Code

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

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

Note:

- | | | | |
|---|---------|-----------|---|
| 1 | 150 180 | 60 90sec; | 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
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/ Packaging SPEC.

/ REEL

Package Type	Units	Dimension	(unit mm ³)
	Units/Reel Reels/Inner Box		