

BRCS200P03ZC

Rev.B Sep.-2024



DATA SHEET

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	-30	V
Drain Current - Continuous		$I_D(T_c=25^\circ\text{C})$	-30	A
Drain Current – Pulsed		I_{DM}	-92	A
Gate-Source Voltage		V_{GS}	± 20	V
Power Dissipation		$P_D(T_c=25^\circ\text{C})$	28	W
Single Pulse Avalanche Energy(L=0.5mH)		E_{AS}	152	mJ
Avalanche Current(L=0.5mH)		I_{AS}	19.5	A
Junction and Storage Temperature Range		T_j, T_{stg}	-55 to 150	
Thermal resistance, junction - ambient	$t \leq 10s$	$R_{\theta JA}$	28	/ W
	Steady-State		62	
Thermal resistance, junction - case	Steady-State	$R_{\theta JC}$	4.5	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	t _{d(on)}	V _{GS} =-10V V _{DS} =-15V R _L =1.5Ω R _{GEN} =3Ω		10		ns
Turn-On Rise Time	t _r			5.5		
Turn-Off Delay Time	t _{d(off)}			26.1		
Turn-Off Fall Time	t _f			9.1		

/ Electrical Characteristic Curve

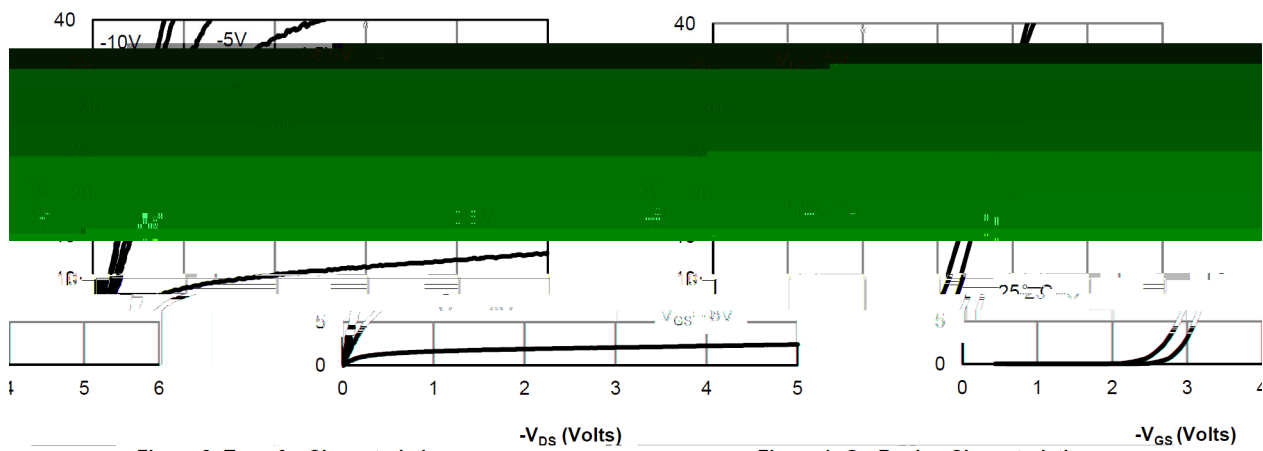
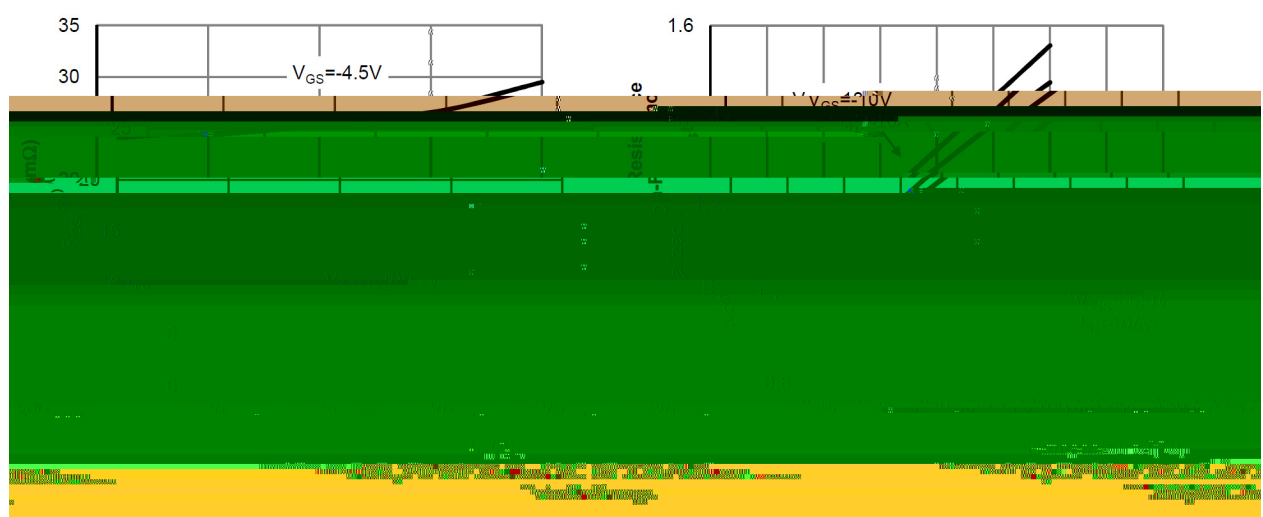
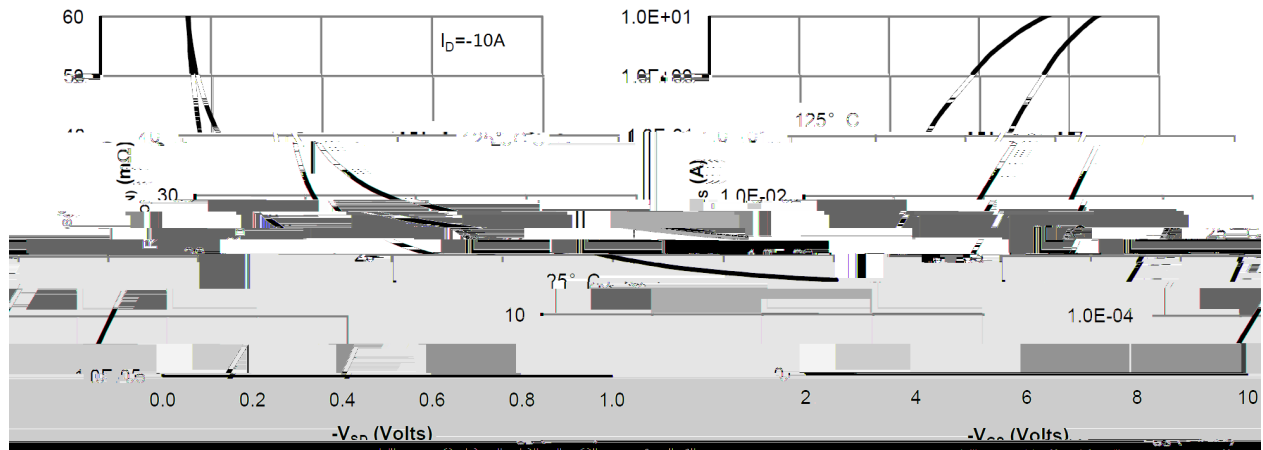
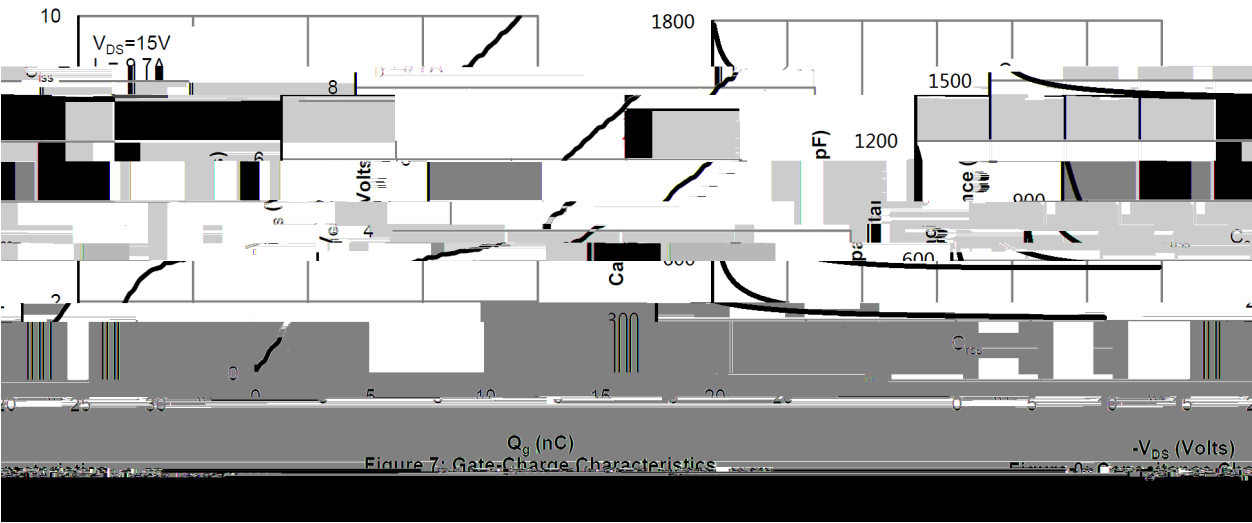
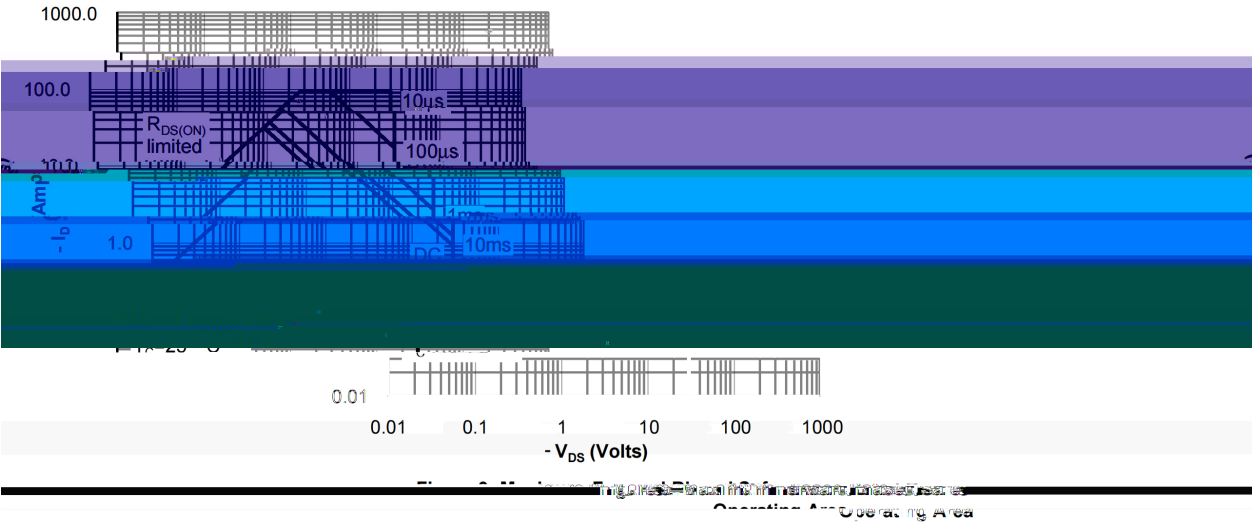
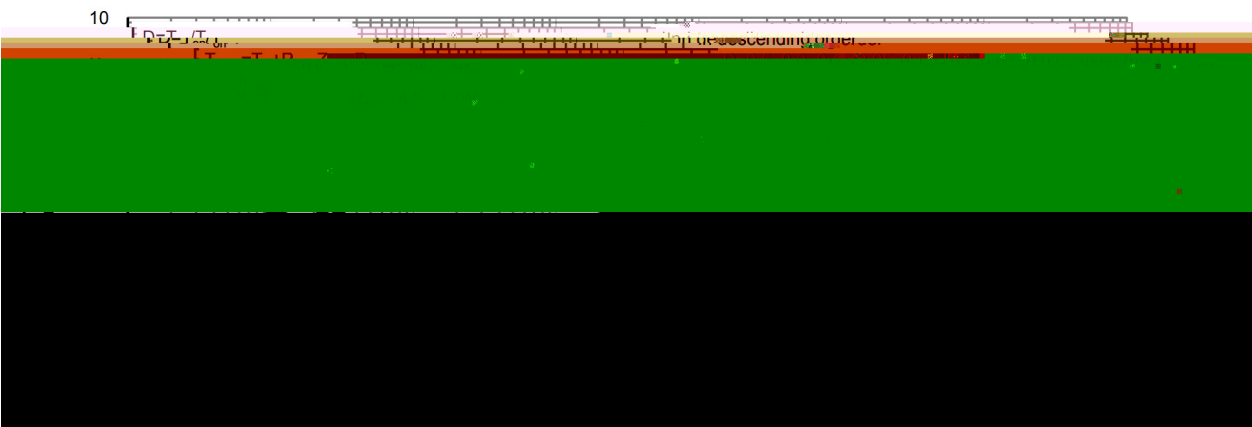


Figure 2: Transfer Characteristic Figure 3: Transfer Characteristic Figure 4: On-Resistance Characteristics Figure 5: On-Resistance vs. Gate-Source Voltage Figure 6: Body Diode Characteristics Figure 7: On-Resistance vs. Drain-Source Voltage

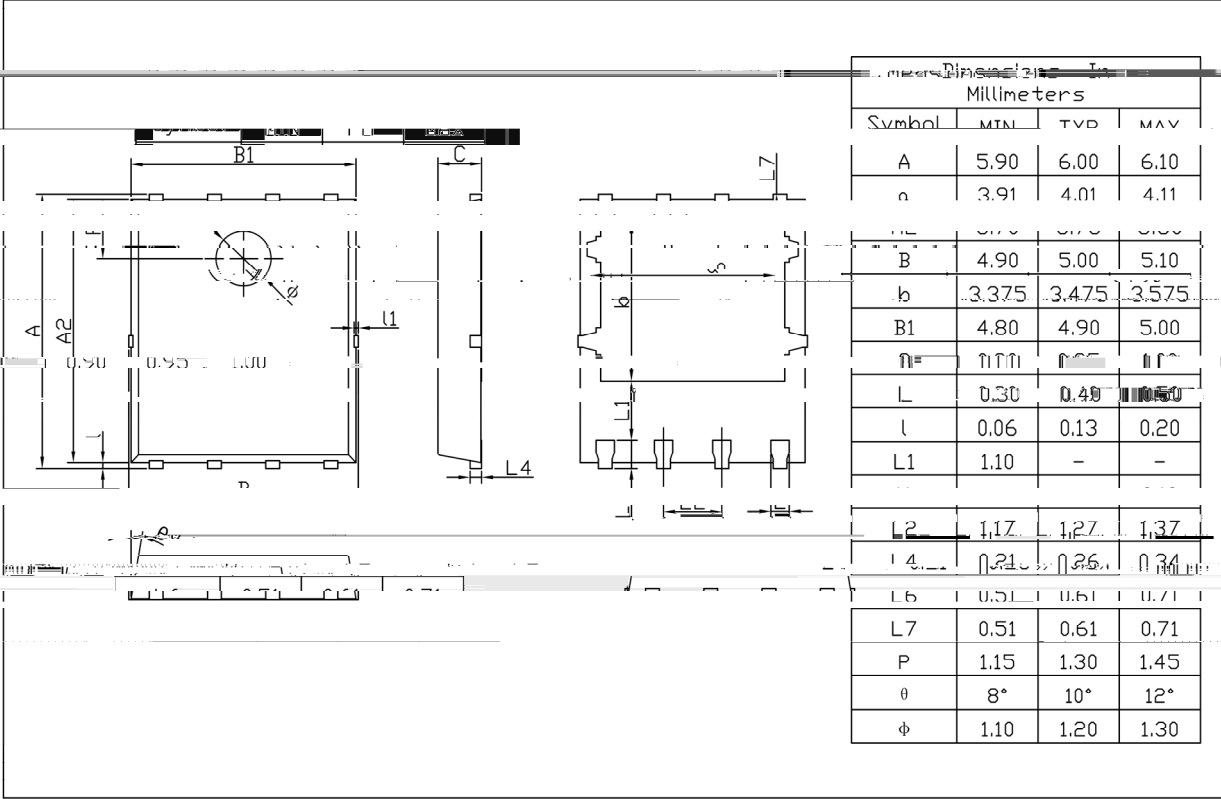
/ Electrical Characteristic Curve



/ Package Dimensions

PDFN5 X6

Unit:mm



Rev.01 202209



/ Marking Instructions



200P03

Note

BR

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

pQ 61@5~ „yT~•bY€ DyT~c~0 c„NñR`5~ „yT 3c~l8D ,HbY€ DyT~,-6 „+8Di~@@5~ „yT~E6 • 8Di~

- Note:

1

150 180

60 90sec;

2

245 5

5 0.5sec;

3

2 10

/sec.

1.Preheating:150~180 , Time:60~90sec.

2.Peak Temp.:245 5 , Duration:5 0.5sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260 5 10 1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

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