

# BRC5030P04SXC

Rev.B Aug.-2025

## / Descriptions

PDFN5x6-Clip P  
P-Channel MOSFET in a PDFN5x6-Clip Plastic Package.

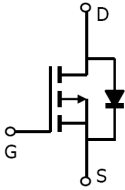
## / Features

$V_{DS}(V)=-40V$        $I_D=-150A$   
 $R_{DS(ON)}@-10V<3m$  (TYP. 2.5m )  
 $R_{DS(ON)}@-4.5V<4.5m$  (TYP. 3.6m )  
HF Product.

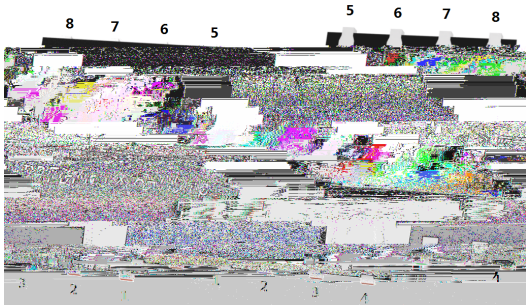
## / Applications

DC - DC  
Motor drivers, DC - DC Converter.

## / Equivalent Circuit



## / Pinning



PIN1 2 3 S      PIN4 G      PIN5 6 7 8 D

## / Marking

See Marking Instructions.

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DATA SHEET

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	-40	V
Drain Current – Continuous	$I_D(T_c=25^\circ\text{C})$	-150	A
	$I_D(T_c=100^\circ\text{C})$	-94	A

Drain Cu

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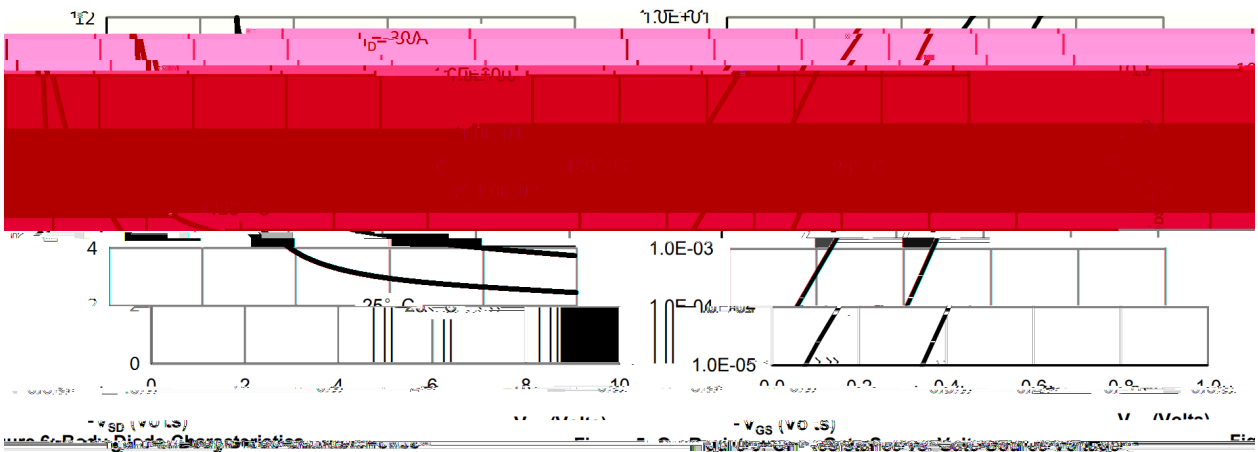
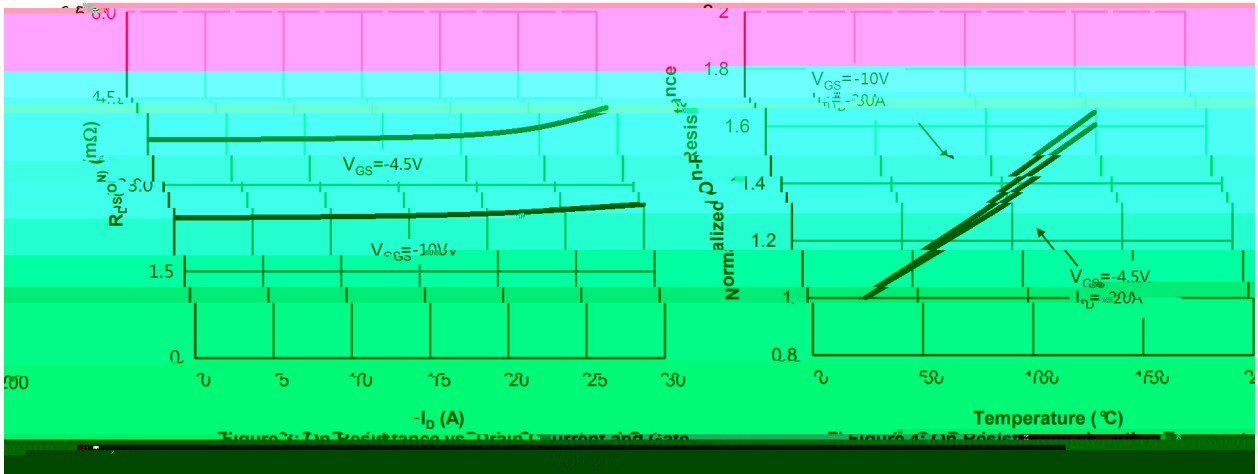
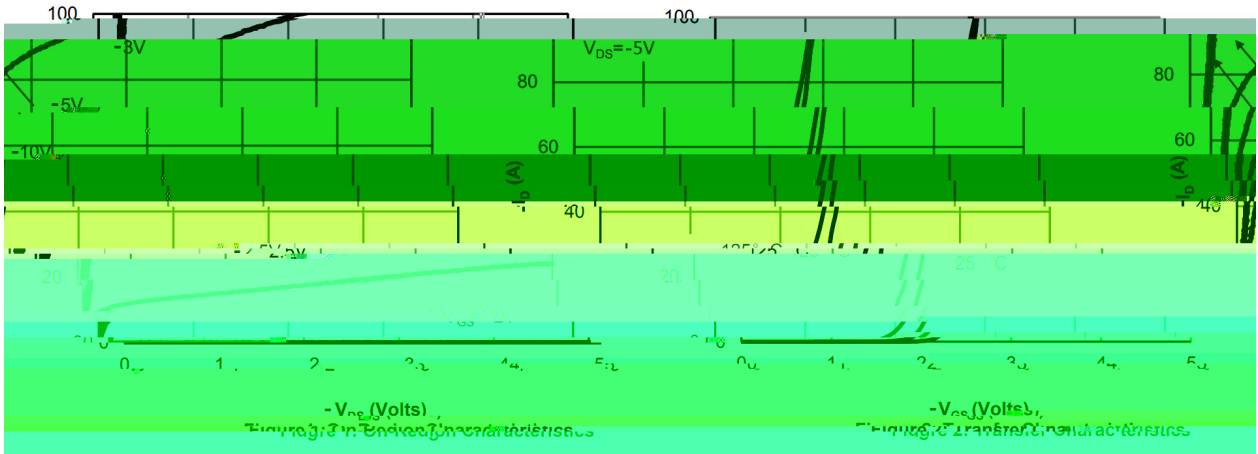
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DATA SHEET

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	$Q_g$	$V_{GS}=-10V, V_{DS}=-20V,$ $I_D=-20A$		249		nC
Gate Source Charge	$Q_{gs}$			53		
Gate Drain Charge	$Q_{gd}$			26		
Turn-On Delay Time	$t_{d(on)}$	$V_{GEN} = -10V V_{DS} = -20V$ $R_L = 0.66 R_G = 3.9$ $I_{DS} = -20A$		15		ns
Turn-On Rise Time	$t_r$			75		
Turn-Off Delay Time	$t_{d(off)}$			324		
Turn-Off Fall Time	$t_f$			98		

/ Electrical Characteristic Curve



/ Electrical Characteristic Curve

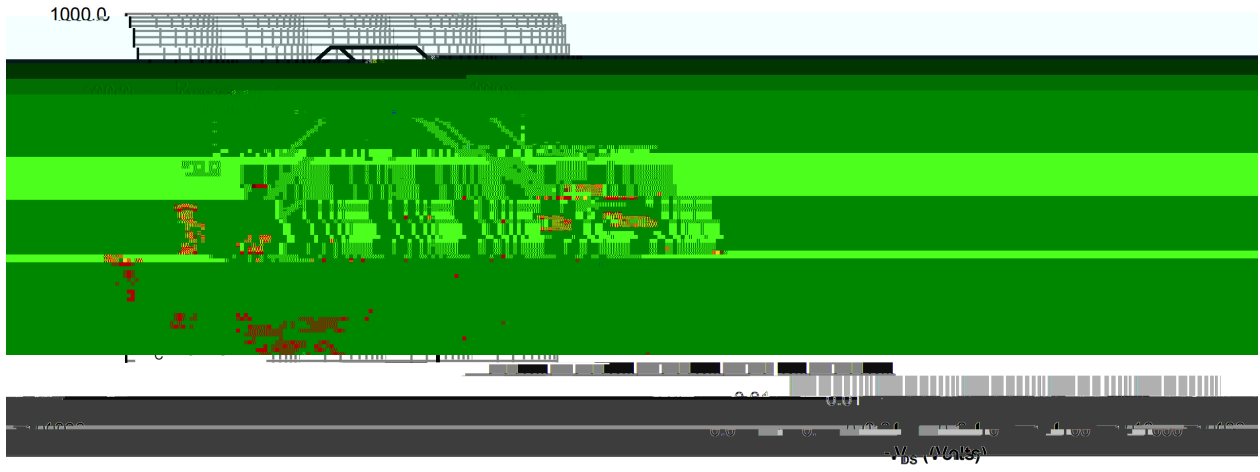
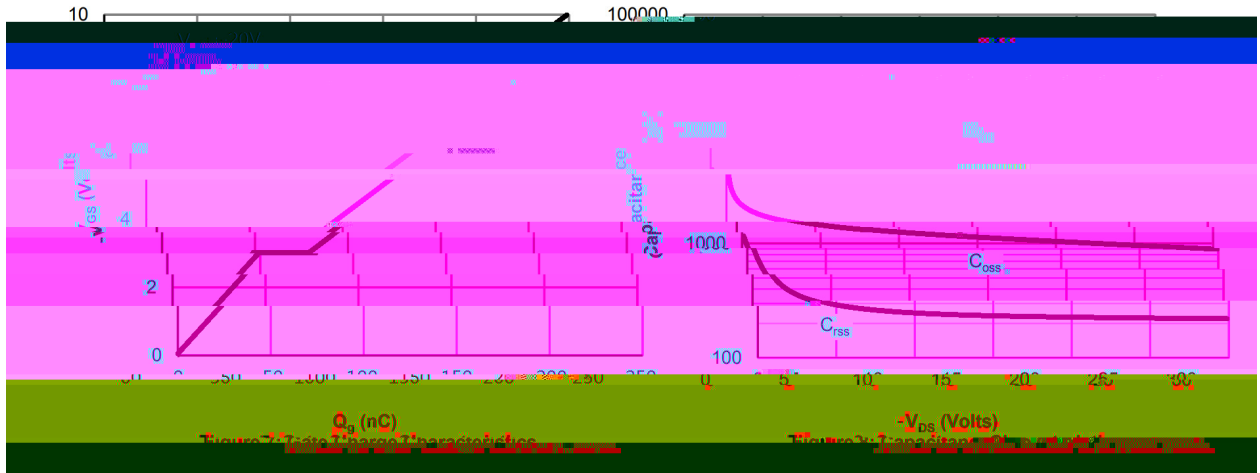
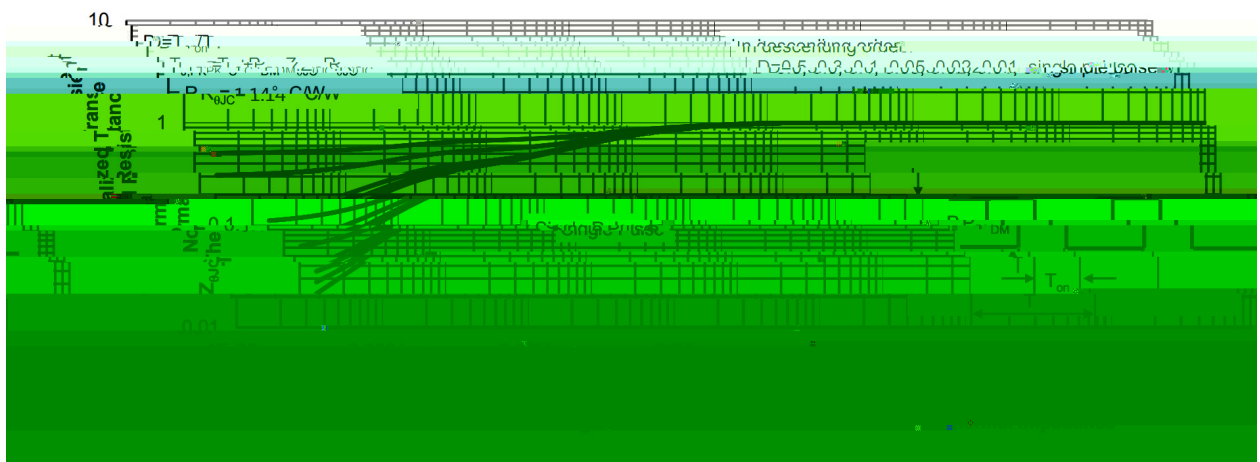
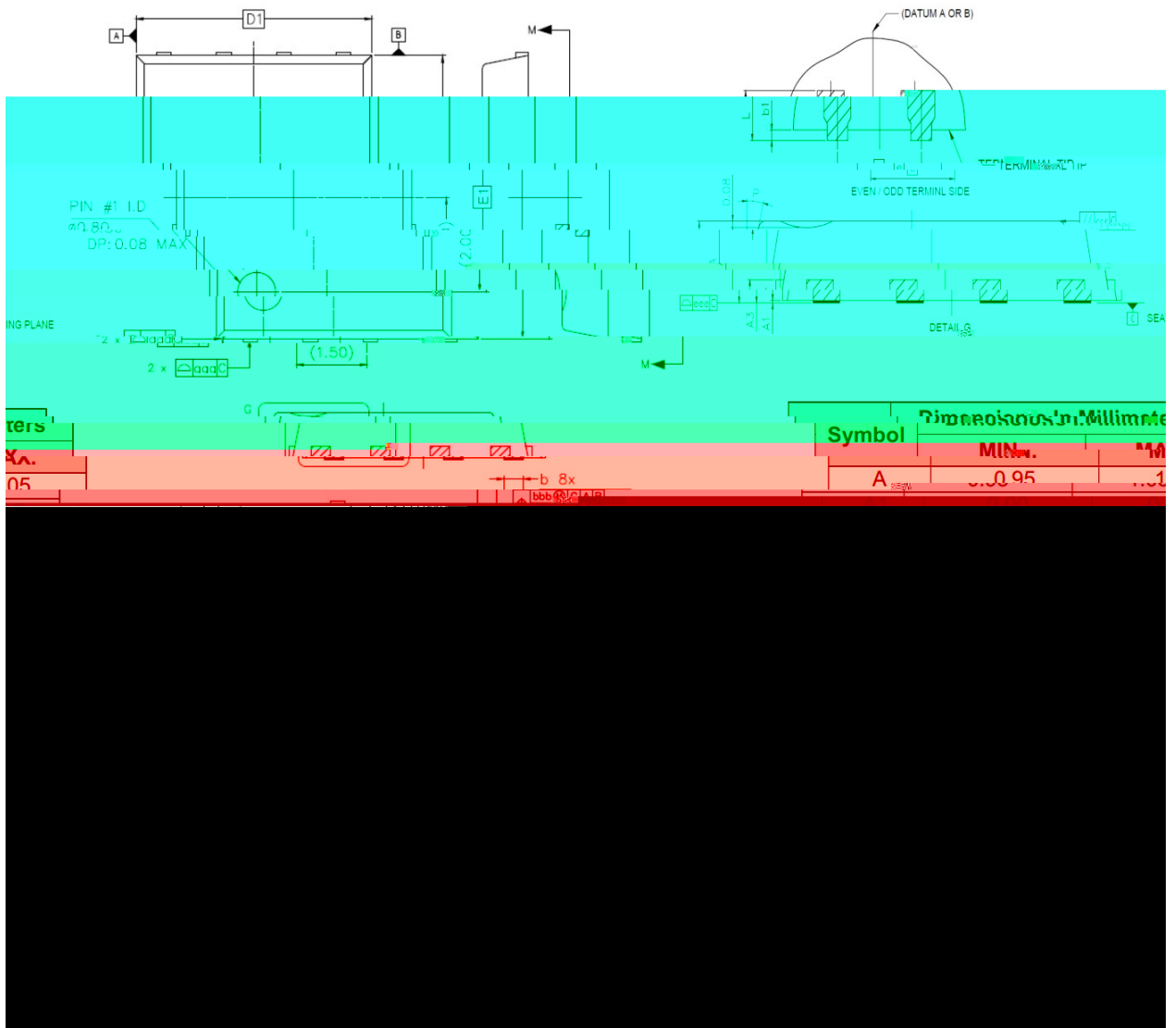


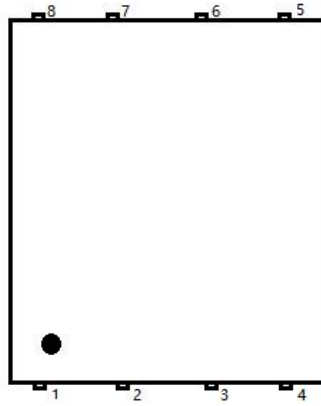
Figure 9: Maximum Forward Biased Safe Operating Area



**/ Package Dimensions**



**/ Marking Instructions**



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**( ) / 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

**/ Packaging SPEC.**

**/ REEL**

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
PDFN5x6-Clip	5,000	2	10,000	6	60,000	13"×12	360×360×50	380×335×366 3