

/ Descriptions

PDFN5×6 N
N-Channel MOSFET in a PDFN5×6 Plastic Package .

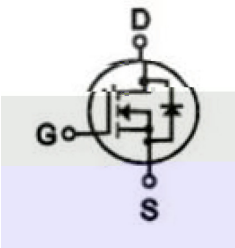
/ Features

Low $R_{DS(ON)}$ to minimize conductive loss;low Gate Charge for fast switching;Low Thermal resistance;HF Product.

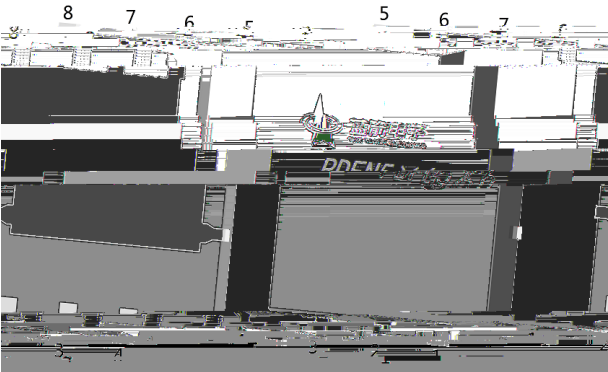
/ Applications

MB/NB/UMPC/VGA Buck -
Battery Management,High Frequency Point-of-Load Synchronous Buck Converter for MB/NB/UMPC/VGA,Networking DC-DC Power System,Load Switch.

/ Equivalent Circuit



/ Pinning



PIN1 2 3 S PIN4 G PIN5 6 7 8 D

Pin	极性
1	S
2	S
3	S
4	G
5	D
6	D
7	D
8	D

/ Marking

See Marking Instructions.

BRCS035N06SZC

Rev.C Feb.-2023

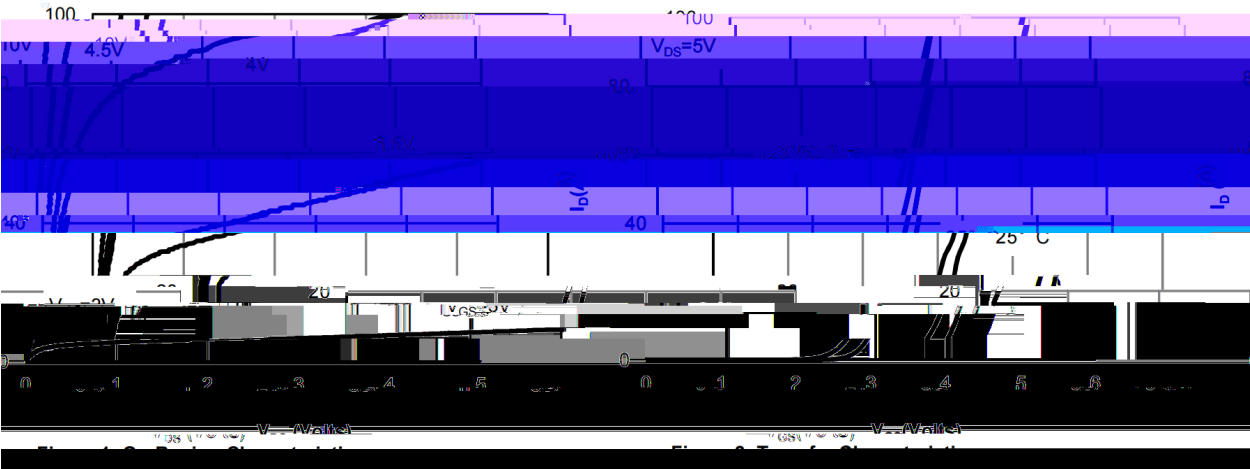
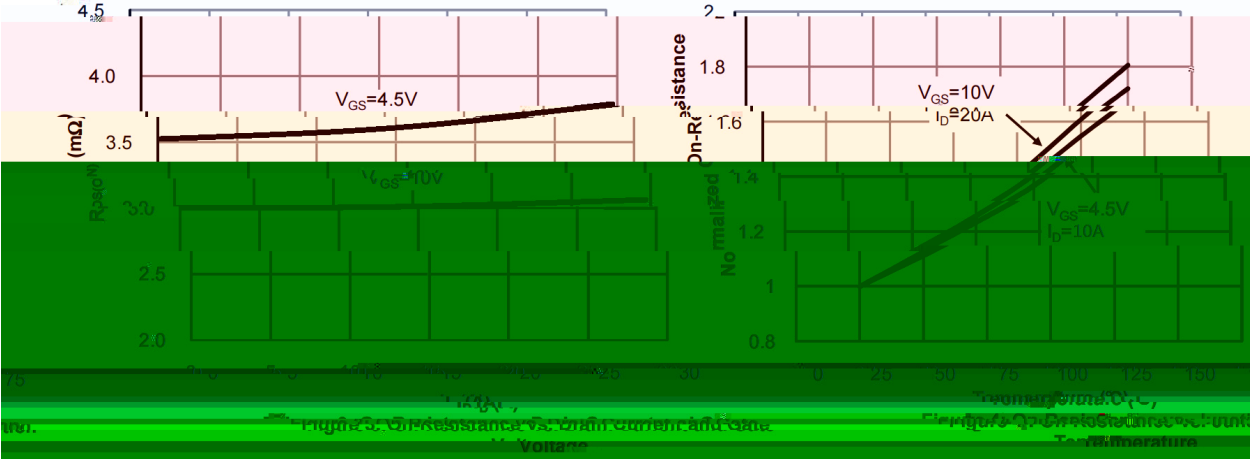
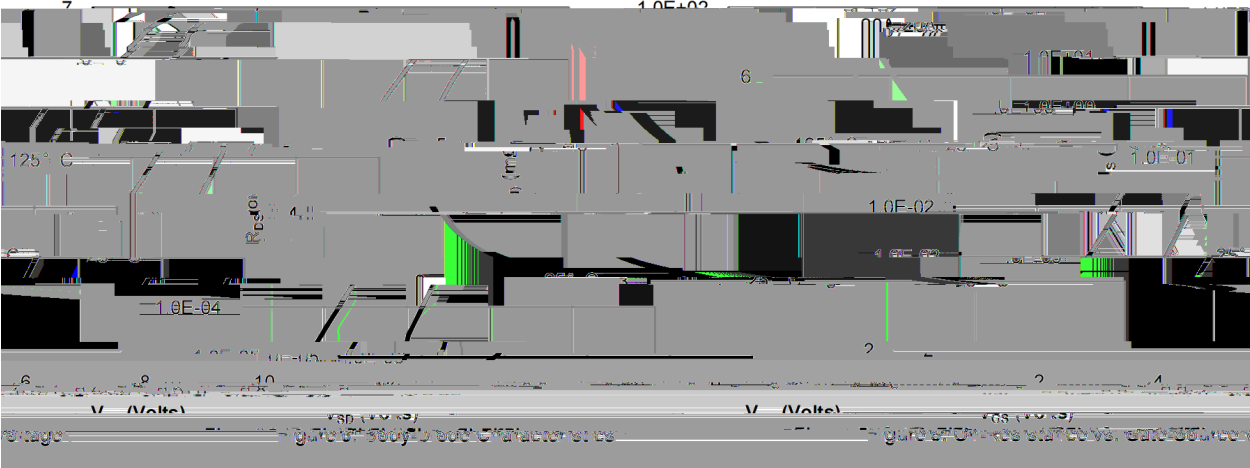
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Continuous Drain Current	I_D	111	A
Pulsed Drain Current	I_{DM}	227	A
Gate-Source Voltage	V_{GS}	± 20	V
Power Dissipation	$P_D(T_c=25^\circ\text{C})$	78	W
Avalanche energy($L=0.5\text{mH}$)	E_{AS}	2000	mJ
Avalanche Current($L=0.5\text{mH}$)	I_{AS}	47	A

Junction and Storage Temperature T_J, T_{STG}

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=30V$ $R_L=1.5\Omega$ $R_{GEN}=3\Omega$		13		ns
Turn-On Rise Time	t_r			4		
Turn-Off Delay Time	$t_{d(off)}$			47		
Turn-Off Fall Time	t_f			6.5		

/ Electrical Characteristic Curve



/ Electrical Characteristic Curve

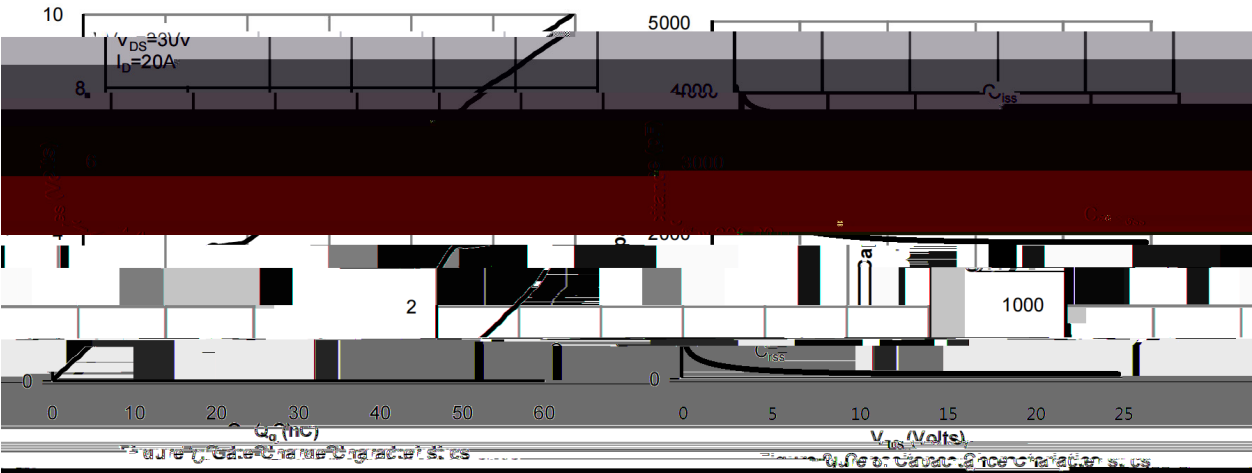
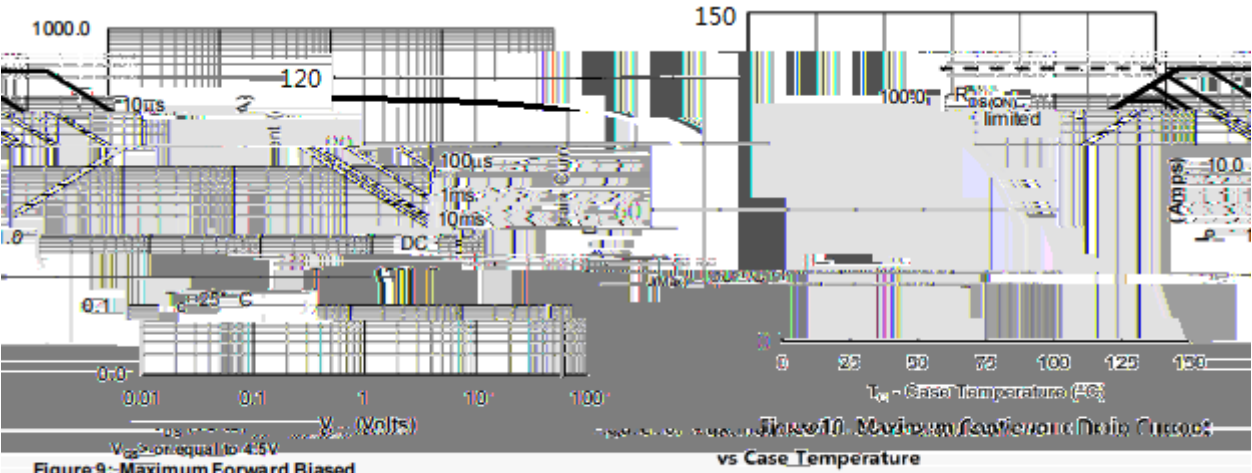


Figure 9: Maximum Forward Biased Safe Operating Area

Figure 10: Maximum Forward Bias Current vs Case Temperature

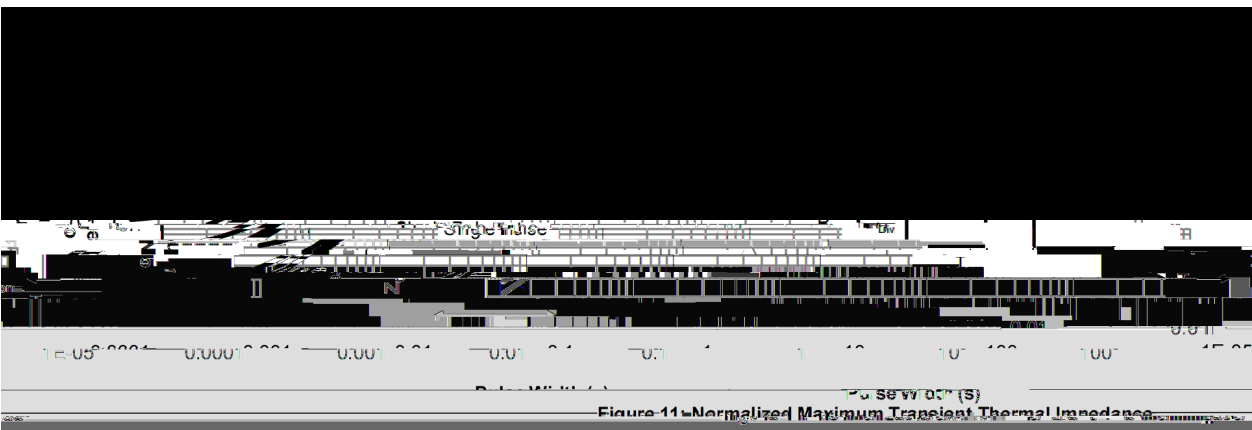
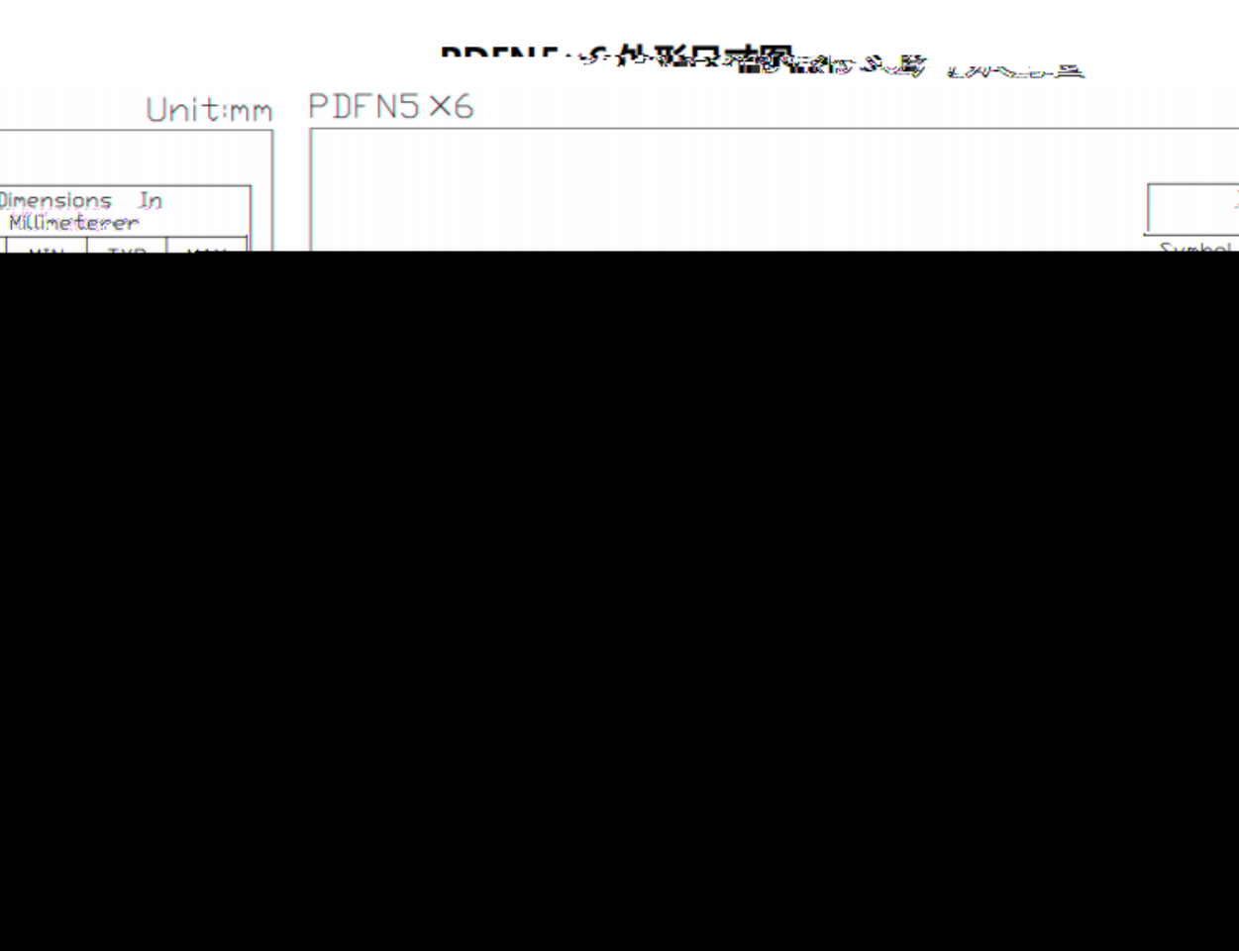


Figure 11: Normalized Maximum Transient Thermal Impedance

/ Package Dimensions



/ Marking Instructions

BR
035N06S

Note

BR	Company Code
035N06S	Product Type Code
****:	Lot No. Code, code change with Lot No

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

- 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