

BRCS035N06SZC

Rev.C Feb.-2023

/ Descriptions

PDFN5×6 N

N-Channel MOSFET in a PDFN5x6 Plastic Package .

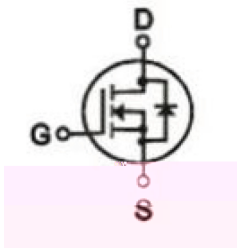
/ Features

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

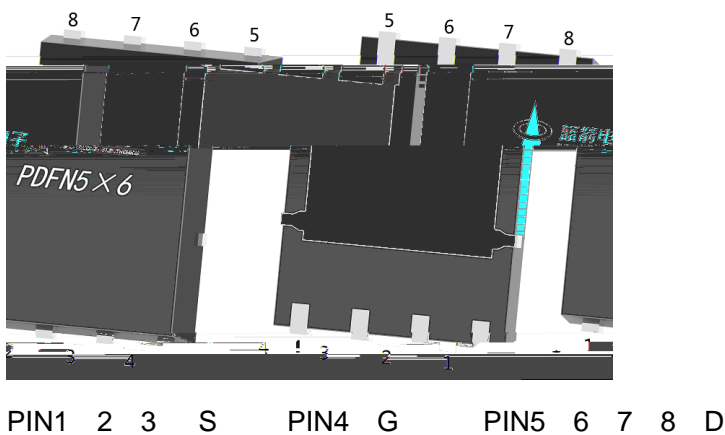
/ Applications

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



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

/ Marking

See Marking Instructions.

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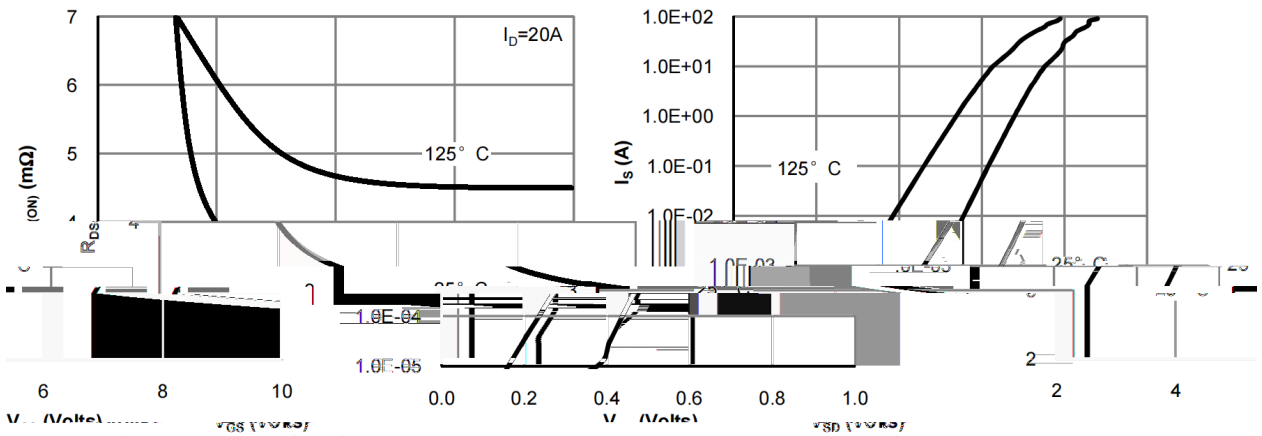
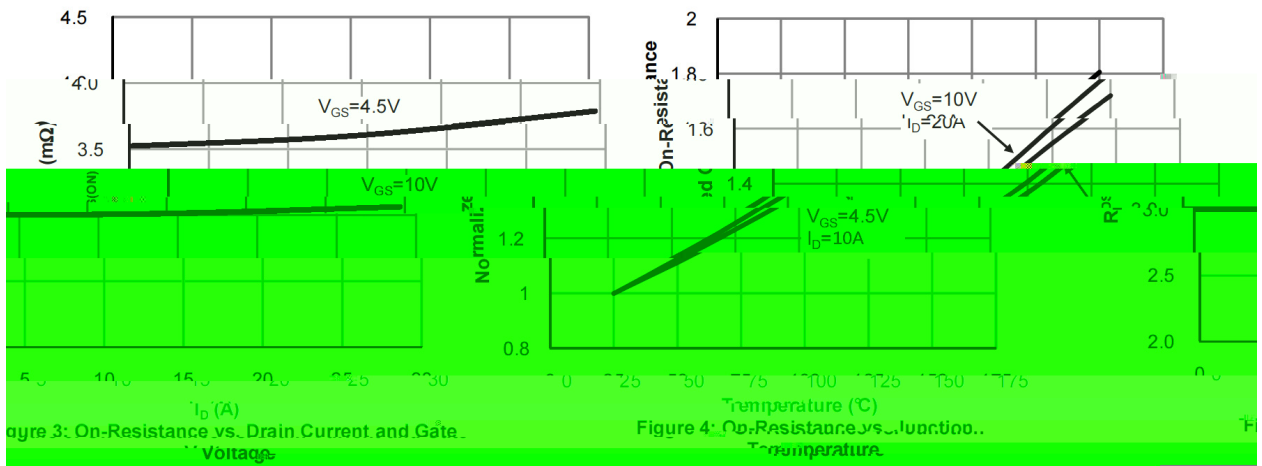
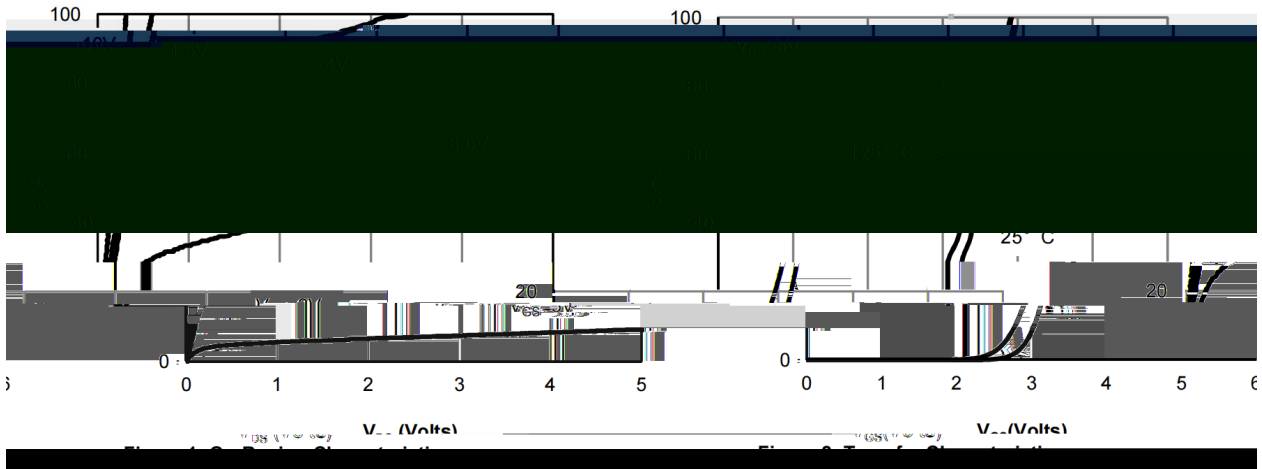
Parameter	Symbol	Rating	Unit	
Drain-Source Voltage	V_{DS}	60	V	
Continuous Drain Current	I_D	111	A	
Pulsed Drain Current	I_{DM}	227	A	
Gate-Source Voltage	V_{GS}	20	V	
Power Dissipation	$P_D(T_c=25^\circ\text{C})$	78	W	
Avalanche energy(L=0.5mH)	E_{AS}	2000	mJ	
Avalanche Current(L=0.5mH)	I_{AS}	47	A	
Junction and Storage Temperature Range	T_j, T_{stg}	-55 to 150		
Maximum Junction-to-Ambient	t 10s	R_{JA}	17	/ W
	Steady-State		55	
Maximum Junction-to-Case	Steady-State	R_{JC}	1.6	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D=250\mu\text{A}, V_{GS}=0\text{V}$	60	69		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60\text{V}, V_{GS}=0\text{V}$			1.0	μA
Gate-Body leakage current	I_{GSS}	$V_{DS}=0\text{V}, V_{GS}=\pm 20\text{V}$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$	1	1.7	2.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=10\text{V}, I_D$				

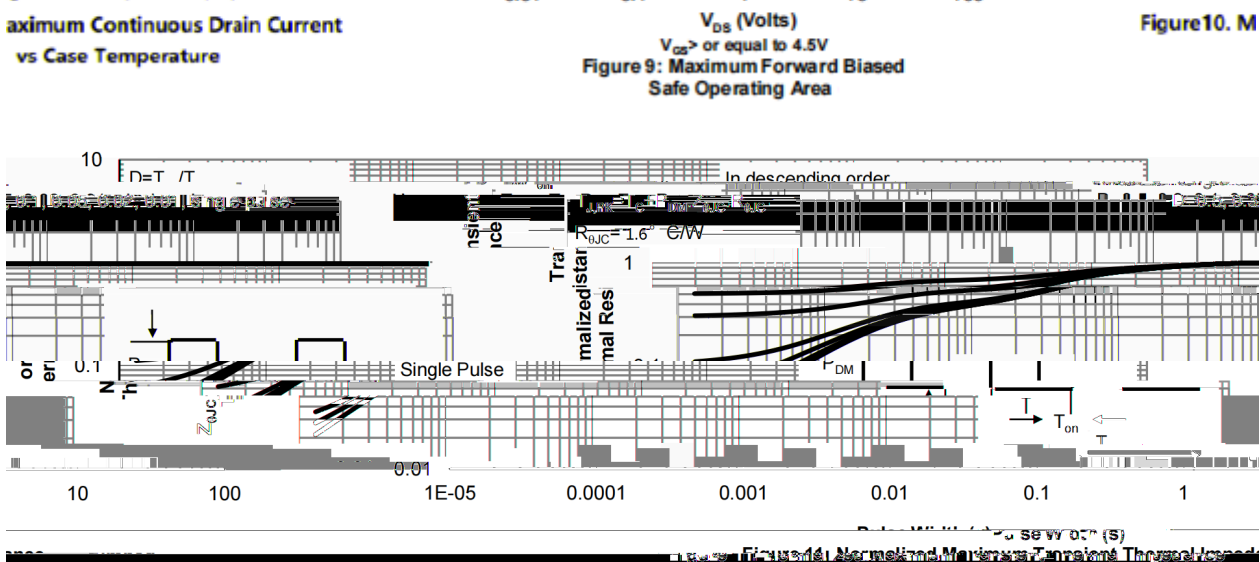
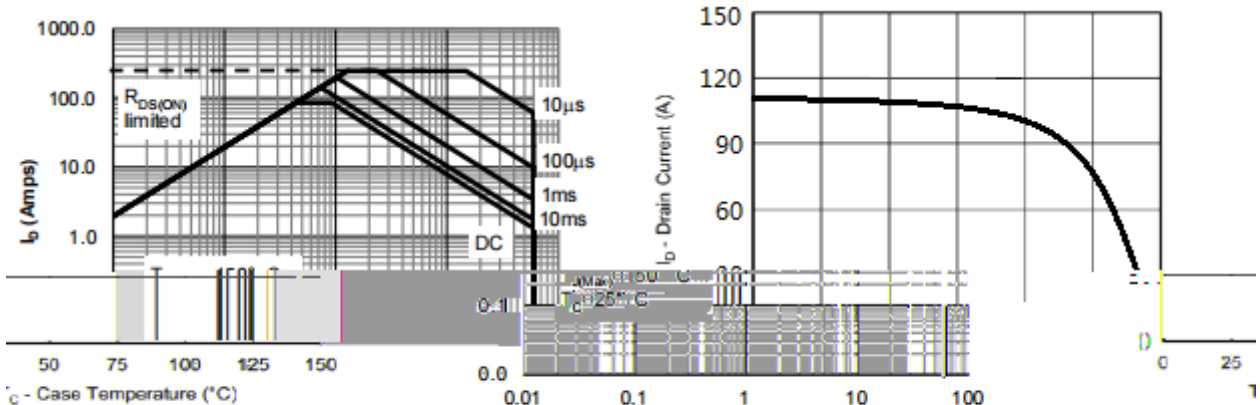
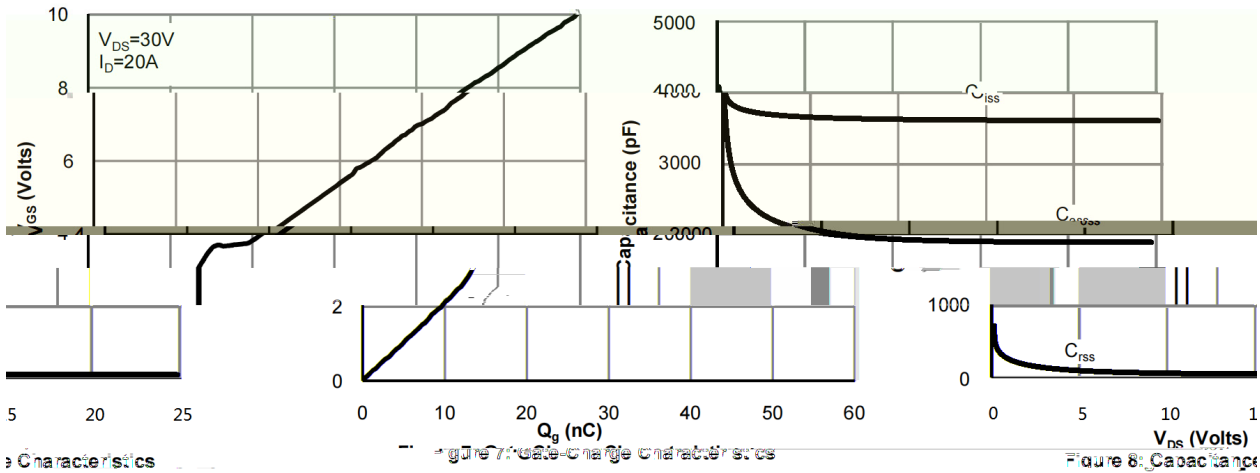
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=30V$ $R_L=1.5$ $R_{GEN}=3$		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

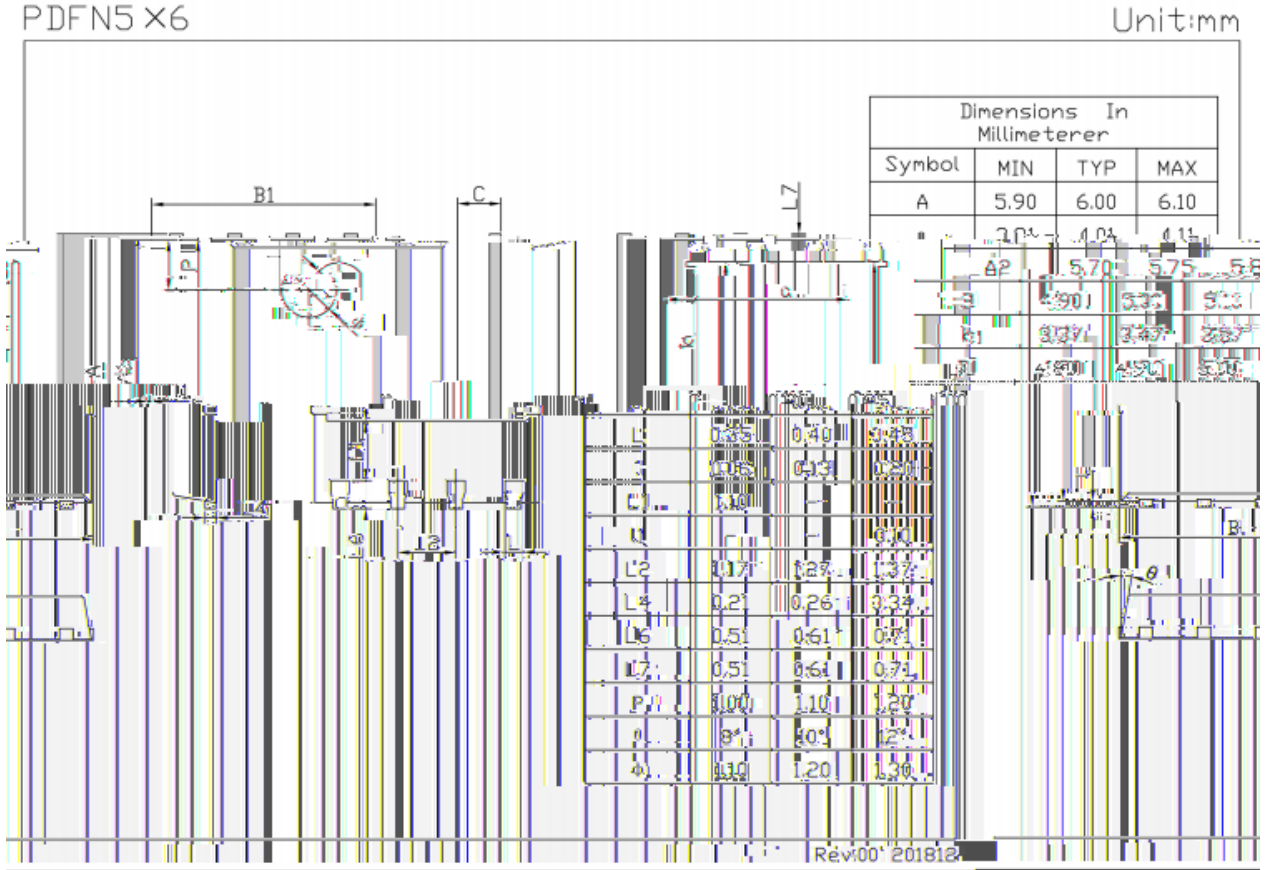


/ Electrical Characteristic Curve



/ Package Dimensions

PDFN5×6 外形尺寸图



/ **Marking Instructions**



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035N06S

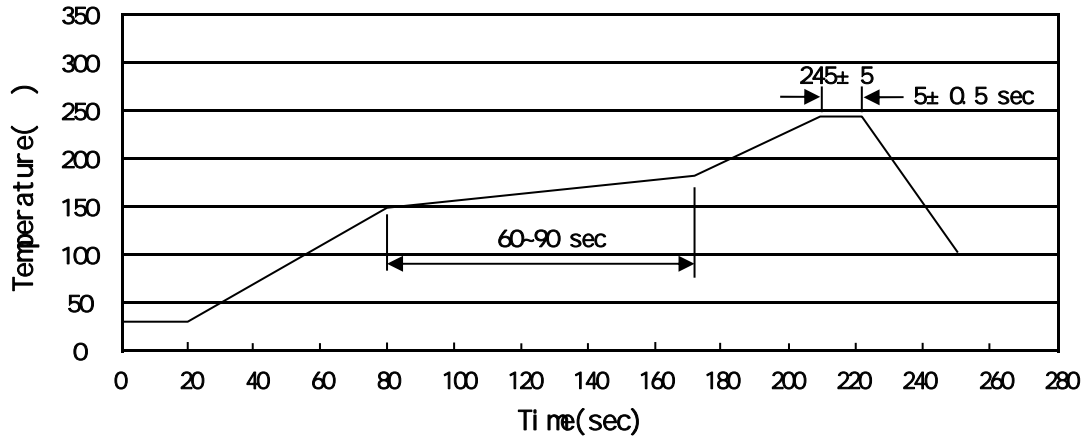
Note

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; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5 | sec; | 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 ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
PDFN5×6	5000	2	10000	6	60000	13"×12	360×360×50	380×335×366

/ Notices