

BRCS850N10SDP

Rev.A Jul.-2022



DATA SHEET

/ Descriptions

TO-252 N MOS
N-CHANNEL MOSFET in a TO-252 Plastic Package.

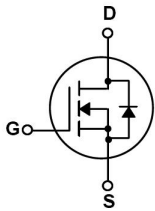
/ Features

Low On-Resistance, fast switching, HF Product.

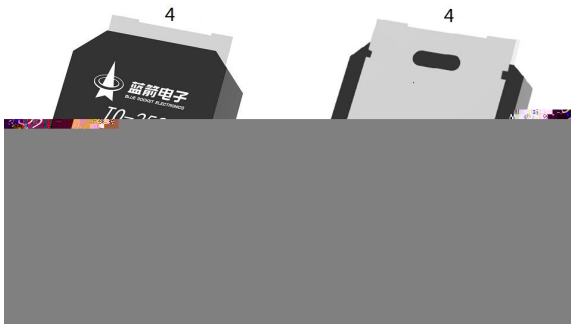
/ Applications

DC/DC LED DC-DC
Power Management in DC/DC Converter. For LED Backlight DC-DC Boost Converter Solution.

/ Equivalent Circuit



/ Pinning



PIN1 G PIN 2 D PIN 3 S PIN 4 D

/ Marking

See Marking Instructions.

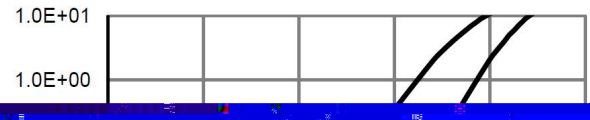
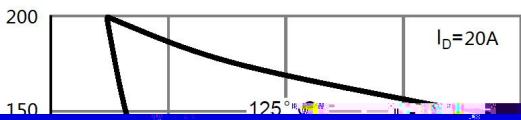
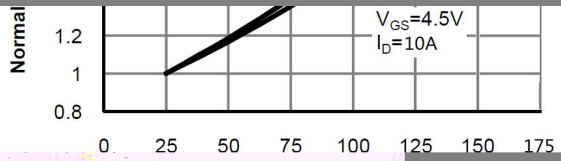
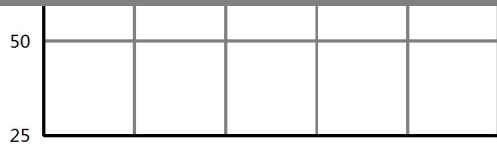
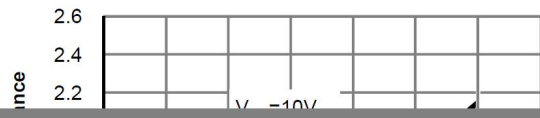
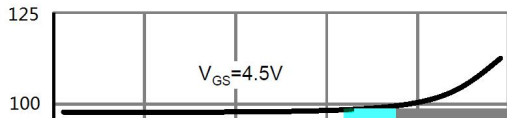




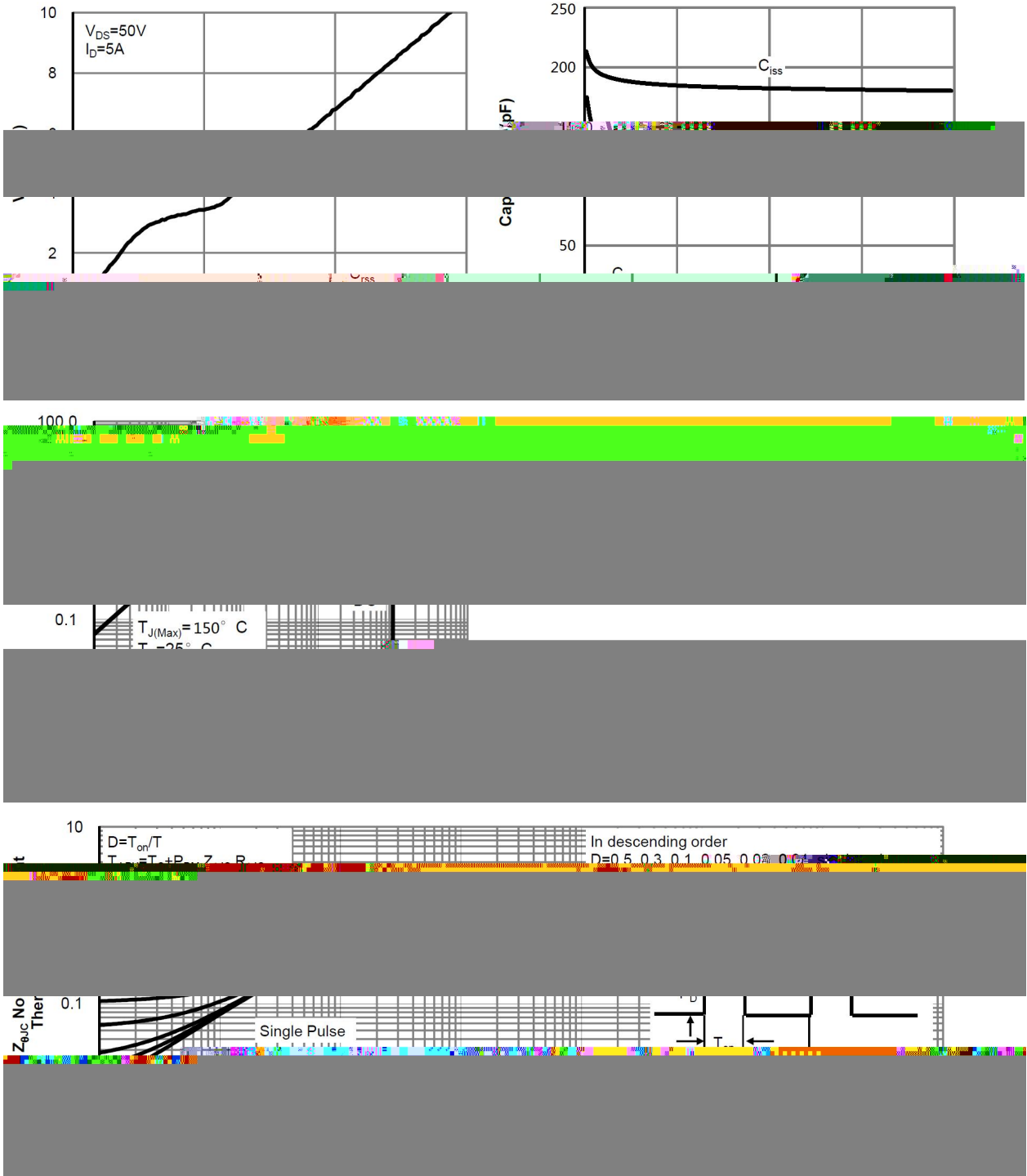
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10V$ $V_{DS}=50V$ $I_D=5A$		6.0		nC
Total Gate Charge	$Q_{g(4.5V)}$			2.9		
Gate Source Charge	Q_{gs}			1.0		
Gate Drain Charge	Q_{gd}			1.1		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=50V$ $R_L=10$ $R_{GEN}=3$		6.2		ns
Turn-On Rise Time	t_r			2.7		
Turn-Off Delay Time	$t_{d(off)}$			18		
Turn-Off Fall Time	t_f			2.6		

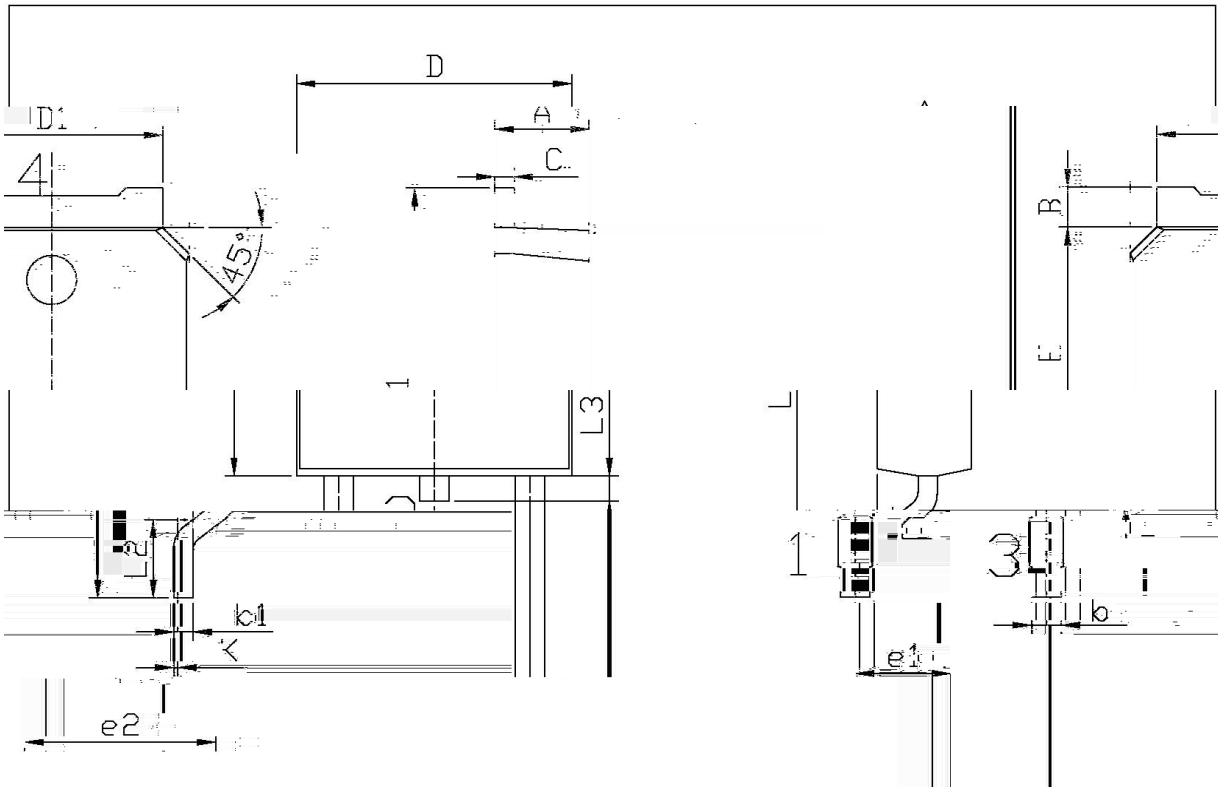
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



/ Package Dimensions



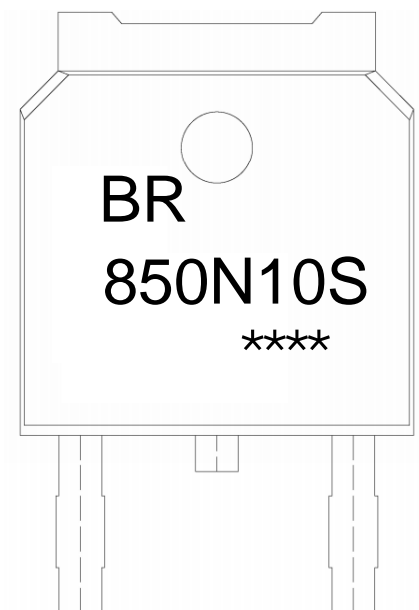
单位: mm

Dimension in Millimeters				Dimension in Millimeters			
Symbol	Value	Symbol	Value	Symbol	Value	Symbol	Value
D	6.45	A	6.75	e	5.95	A	6.25
C	0.95	B	2.34	e1	2.24	B	2.34
L3	1.70	k	0.90	e2	1.70	k	0.90
b1	0.45	b	0.55	L2	9.85	b	10.35
e2	2.00	L2	0.45	L1	1.2	L1	1.70
e1	3	D	0.60	D	6.45	D	6.75
e1	0.90	D	0.90	D	5.70	D	5.50

TN-252



/ Marking Instructions



BR

850N10S

Note:

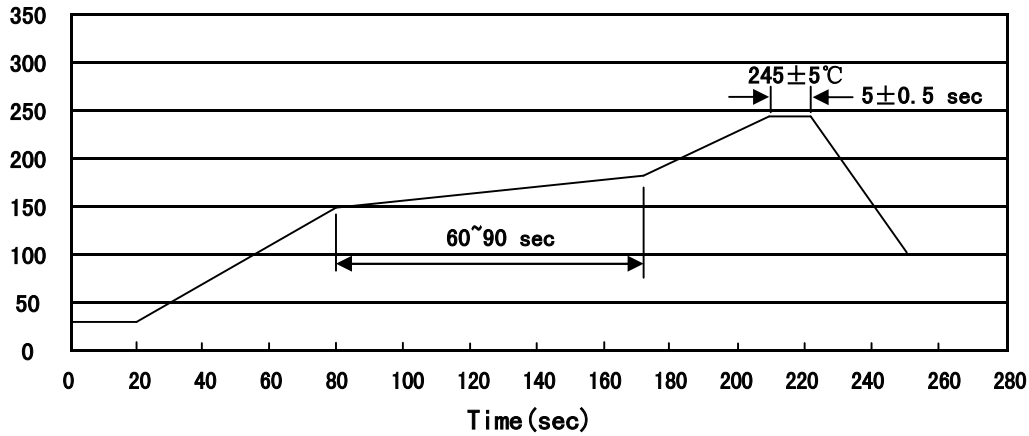
BR: Company Code

850N10S: Product Type

*****: 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°C, Time:60~90sec. |
| 2 | 245±5 | | | 5±0.5sec; | 2.Peak Temp.:245±5°C, Duration:5±0.5sec. |
| 3 | | | 2 | 10°C/sec. | 3. Cooling Speed: 2~10°C/sec. |

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
TO-252	2,500	2	5,000	6	30,000	13" ×16	360×360×50	380×335×366

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

/ Notices