



Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	20	V
Drain Current ^G	$I_D(T_C=25^\circ C)$	30	A
	$I_D(T_C=100^\circ C)$	20	A
Drain Current - Pulsed ^C	I_{DM}	120	A
Maximum Body-Diode Continuous Current ^G	I_S	30	A
Gate-Source Voltage	V_{GS}	± 12	V
Avalanche Current ^C	I_{AS}	12	A
Avalanche energy $L=0.5mH$ ^C	E_{AS}	115	mJ
Power Dissipation ^B	$P_D(T_C=25^\circ C)$	100	W
	$P_D(T_C=100^\circ C)$	50	W
Power Dissipation ^A	$P_{DSM}(T_A=25^\circ C)$	2.5	W
	$P_{DSM}(T_A=70^\circ C)$	1.6	W
Junction and Storage Temperature Range	T_J, T_{stg}	-55 ~ 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=250\mu A$	20			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=20V, V_{GS}=0V$			1.0	A

 $T_J: 48 \sim 125^\circ C, T_C: 25^\circ C, T_A: 25^\circ C, T_{stg}: -55 \sim 150^\circ C$

v "Ω	γ N	⌋ : γ τ	ω η Æ	ε ζ Æ	ω z Æ	D H
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit

/ Electrical Characteristic Curve

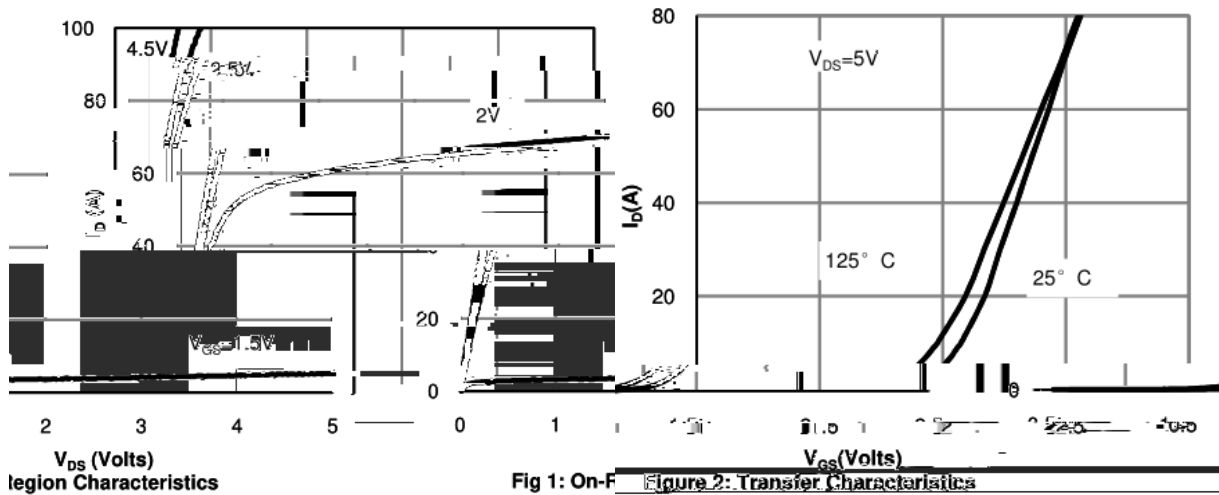
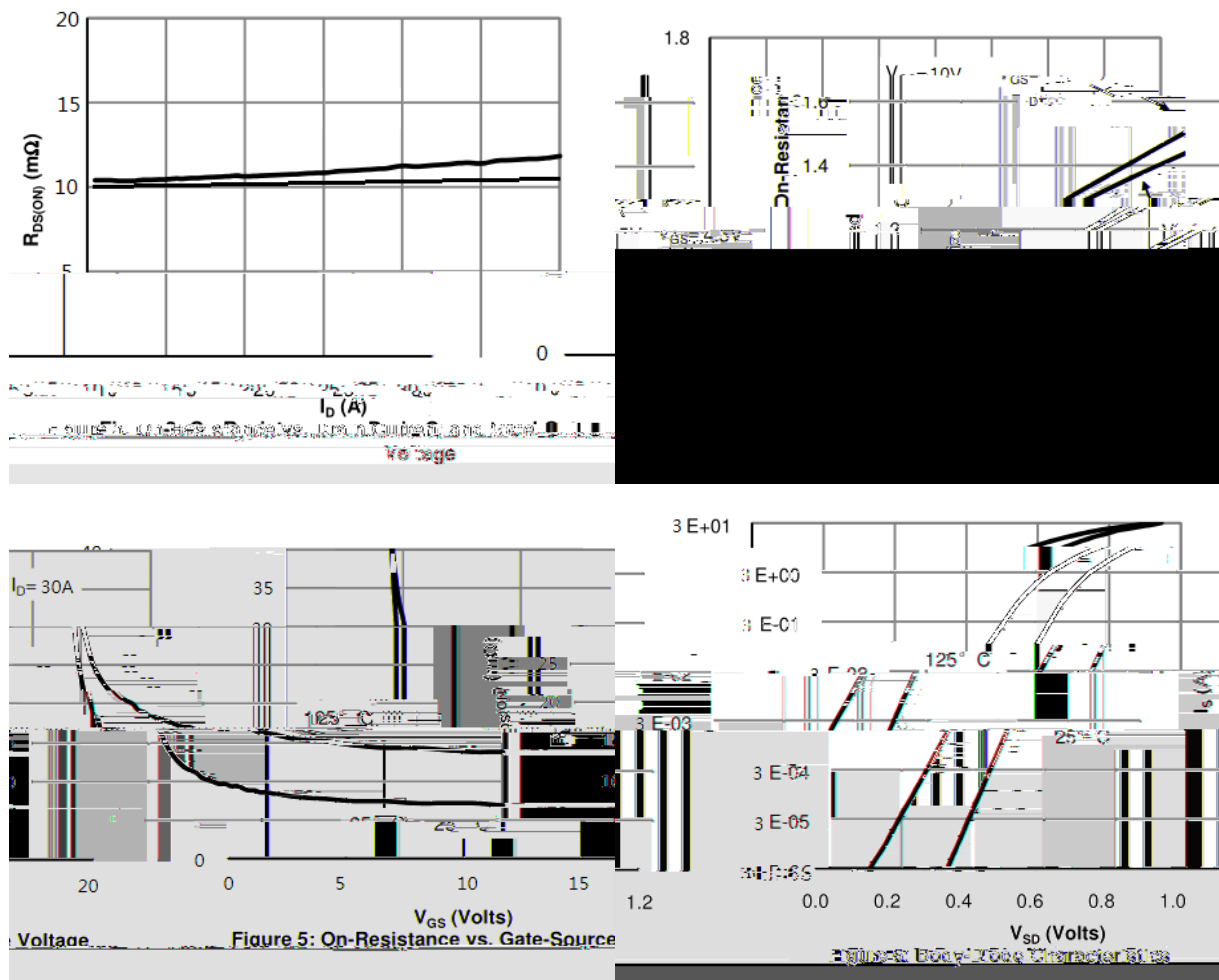


Figure 5: On-Resistance vs. Gate-Source Voltage

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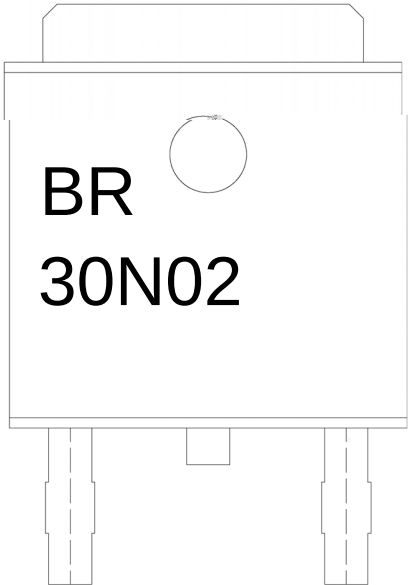


蓝箭电子
BLUE ROCKET ELECTRONICS

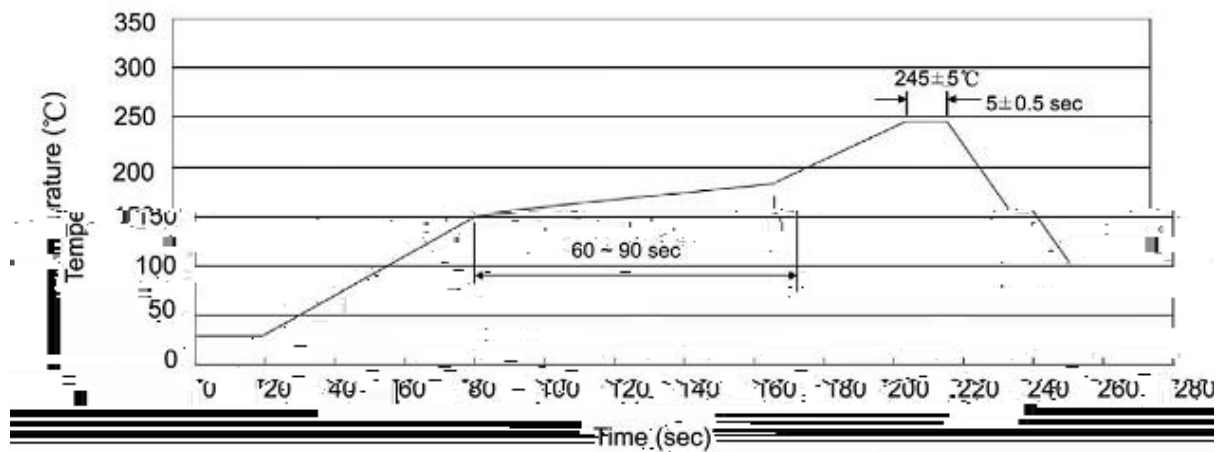
DATA SHEET

BRCS30N02DP

/ Marking Instructions



公司代码	BR	公司代码
产品代码	30N02	产品代码
批次代码	----	批次代码
Note:		
BR:	Company Code	
30N02:	Product Type Code.	
****:	Lot No. Code, code change with Lot No.	


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


℃ ° X

1. 150~180 °C, Time: 60~90sec;
2. 245±5 °C, Duration: 5±0.5sec;
3. Cooling Speed: 2~10 °C/sec.

Note:

1. Preheating: 150~180 °C, Time: 60~90sec.
2. Peak Temp.: 245±5 °C, Duration: 5±0.5sec.
3. Cooling Speed: 2~10 °C/sec.

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

REEL

Package Type	Units					Dimension (unit mm ³)		

TUBE

Package Type	Units					Dimension (unit mm ³)		

/ Notices