



Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	20	V
Drain Current ^G	$I_D(T_C=25^\circ\text{C})$	30	A
	$I_D(T_C=100^\circ\text{C})$	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 $L=0.5\text{mH}$ ^C	E_{AS}	115	mJ
Power Dissipation ^B	$P_D(T_C=25^\circ\text{C})$	100	W
	$P_D(T_C=100^\circ\text{C})$	50	W
Power Dissipation ^A	$P_{DSM}(T_A=25^\circ\text{C})$	2.5	W
	$P_{DSM}(T_A=70^\circ\text{C})$	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}	$V_{GS}=0V$ $I_D=250\text{ A}$	20			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=20V$ $V_{GS}=0V$			1.0	A

 $T_J: 48^\circ\text{C}$ $T_D: 0.016^\circ\text{C}$ $T_C(A): T_J$ $E_T: 55.62$ 331.04 482.46 $.48001$ ref 55.62 312.56

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
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Electrical Characteristic Curve

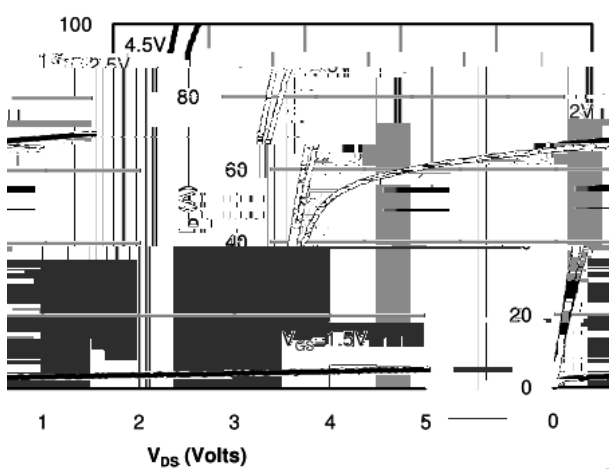


Figure 1: On-Region Characteristics

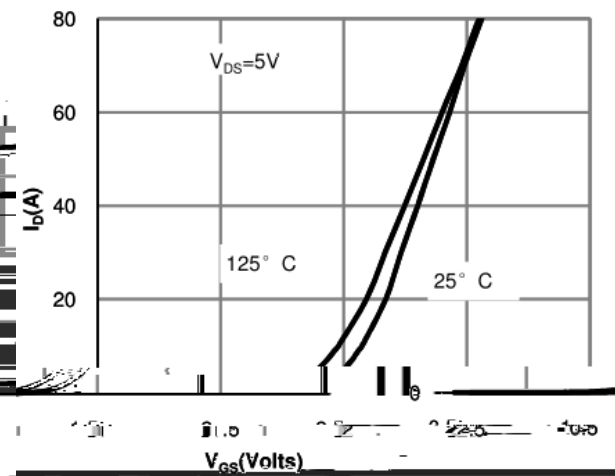


Figure 2: Transfer Characteristics

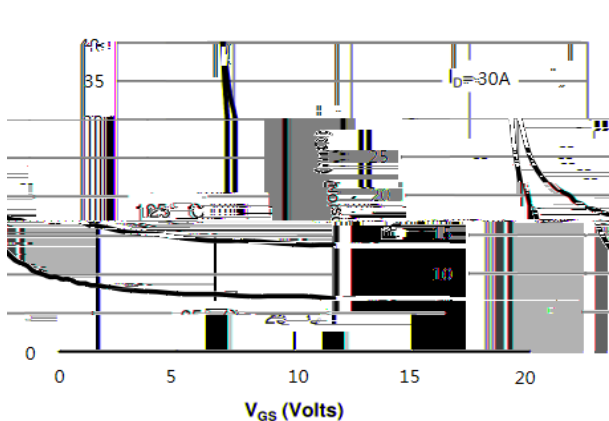
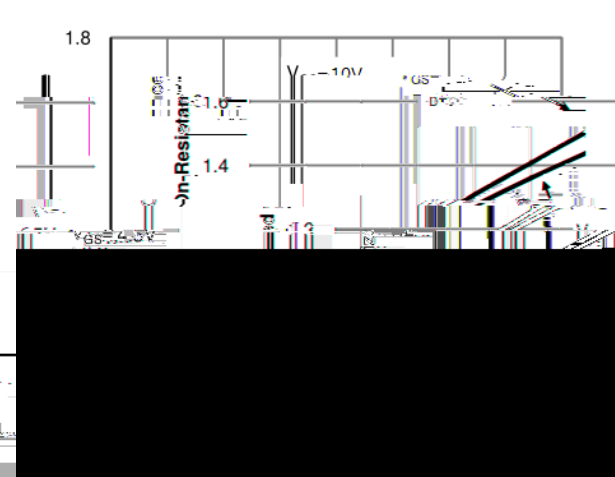
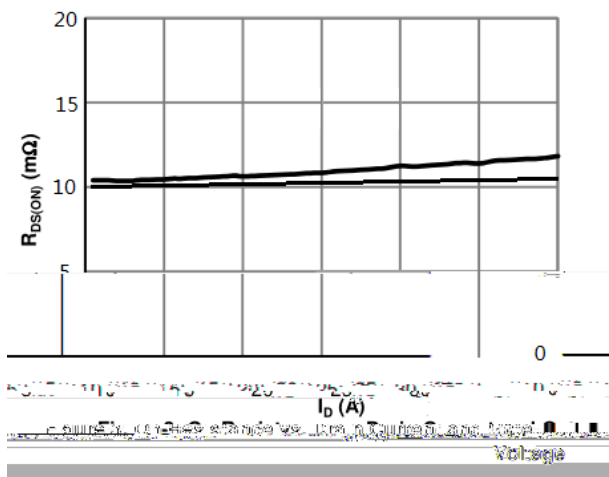


Figure 5: On-Resistance vs. Gate-Source Voltage

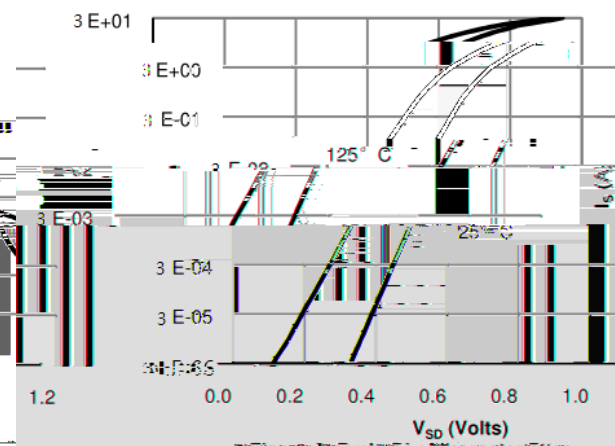


Figure 6: Body Diode Characteristics

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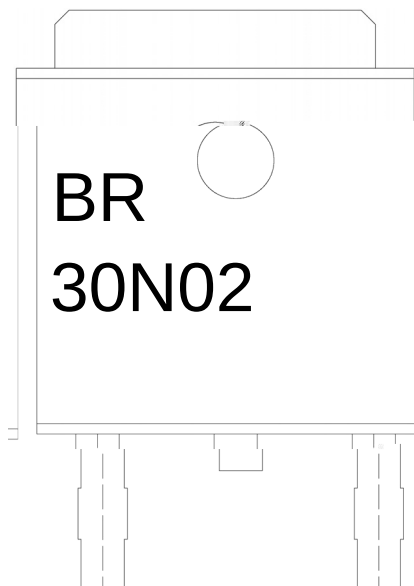


蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

BRCS30N02DP

/ Marking Instructions



BR

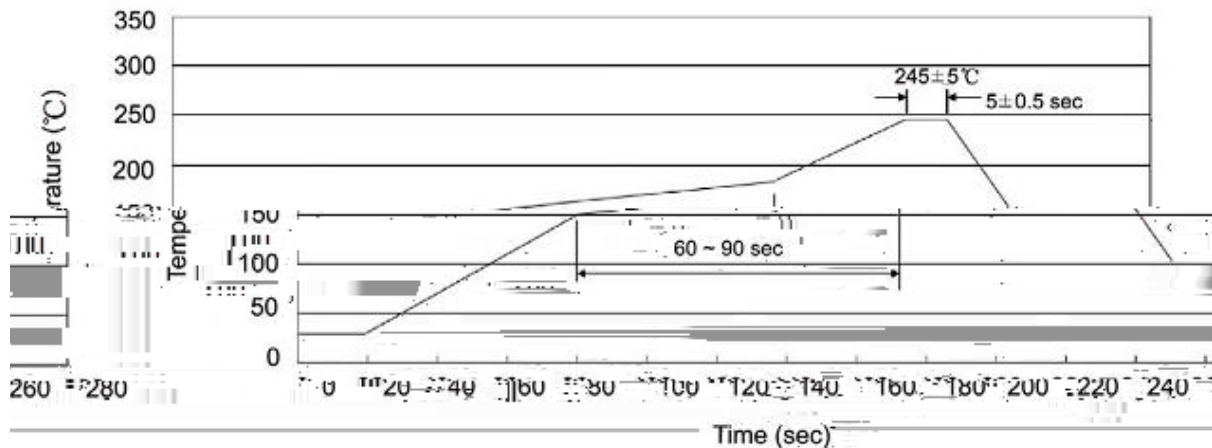
30N02

Note:

BR: Company Code

30N02: 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 ^{±0.5sec} | | 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 ³)		

/ TUBE

Package Type	Units					Dimension (unit mm ³)		

/ Notices