

BRCS020N06SRA

Rev.B Dec.-2024



蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

TO-220 N

N-CHANNEL MOSFET in a TO-220 Plastic Package.

V_{DS}

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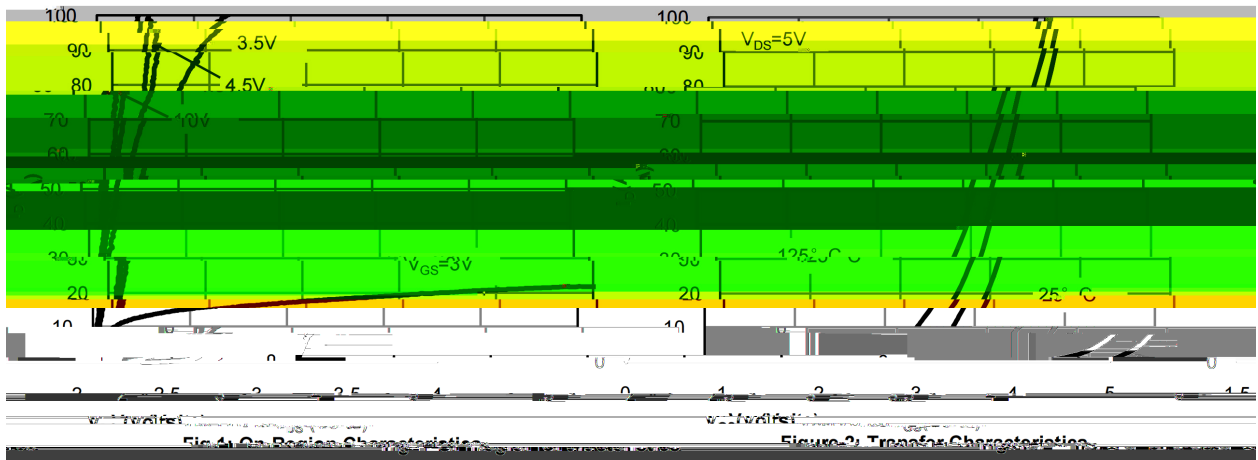
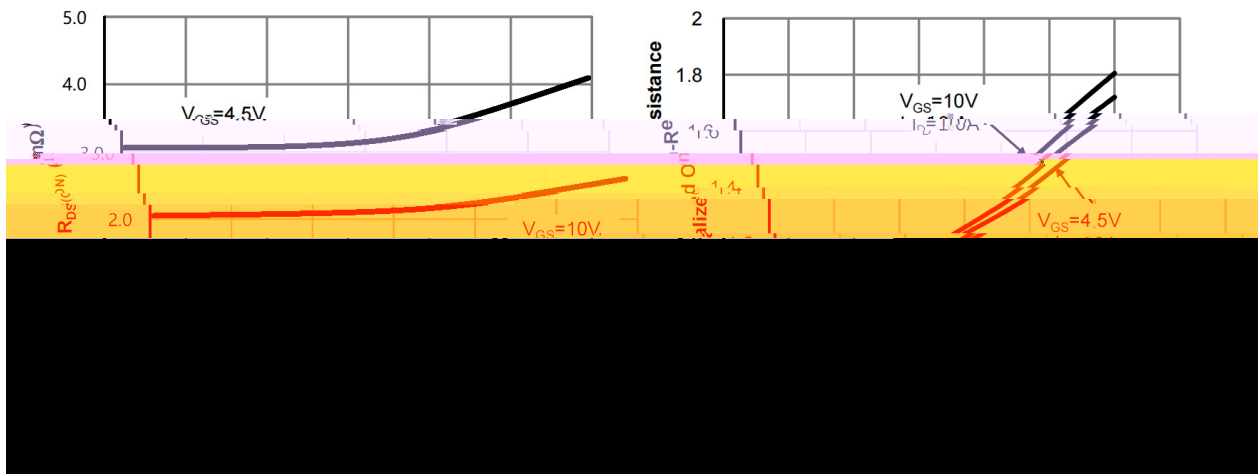
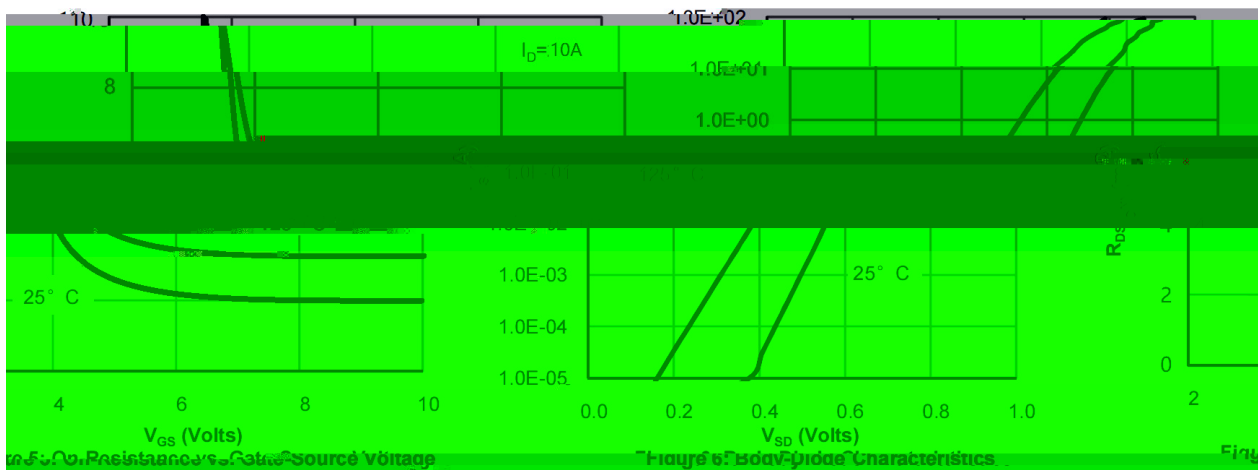
DATA SHEET

Parameter	^N Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Drain Current	$I_D(T_c=25^\circ\text{C})$	225	A
Pulsed Drain Current	I_{DM}	646	A
Gate-Source Voltage	V_{GS}	± 20	V
Single Pulsed Avalanche Energy $L=0.5\text{mH}$	E_{AS}	380	mJ
Avalanche Current	I_{AS}	30.8	A
Total Power Dissipation	$P_D(T_c=25^\circ\text{C})$	125	W

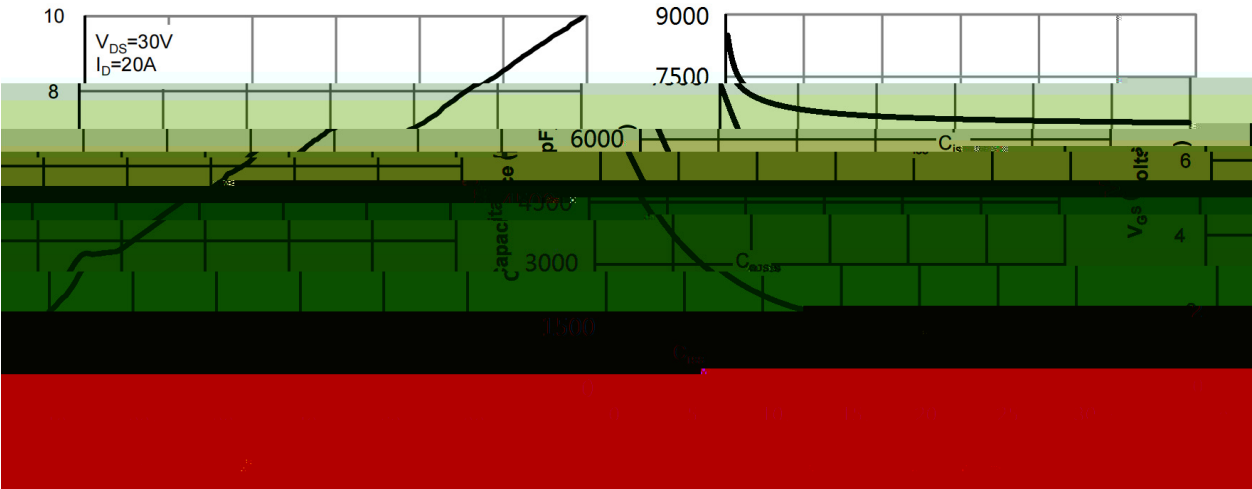
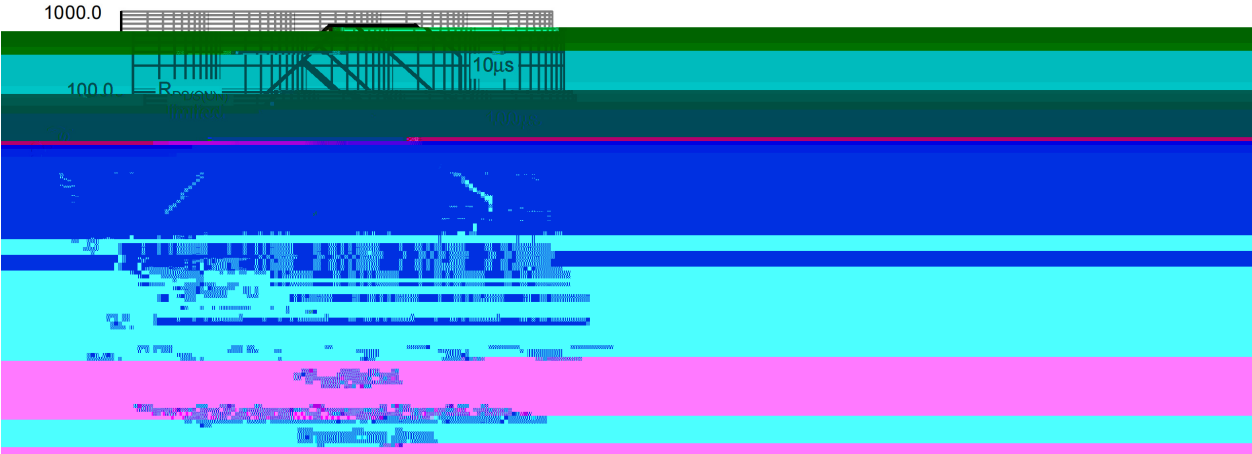
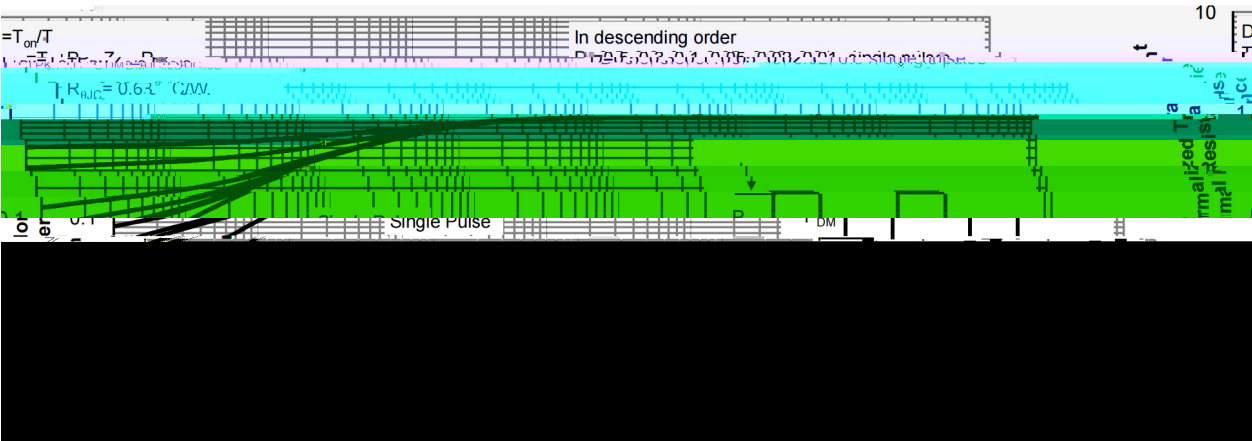

/ Electrical Characteristics(Ta=25)

Parameter	^N Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	$Q_g(10V)$	$V_{GS}=10V$ $V_{DS}=30V$ $I_D=20A$		60		nC
Total Gate Charge	$Q_g(4.5V)$			23		
Gate Source Charge	Q_{gs}			16		
Gate Drain Charge	Q_{gd}			3		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=20V$ $R_L=1\Omega$ $R_{GEN}=3\Omega$		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		

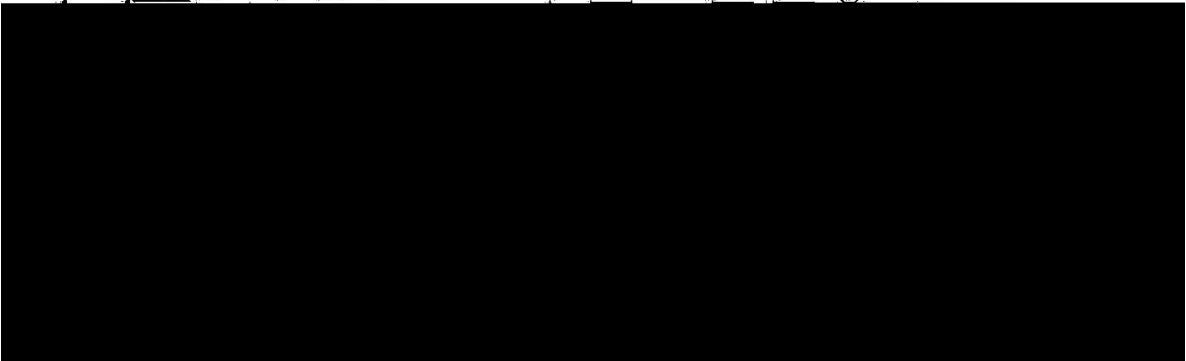
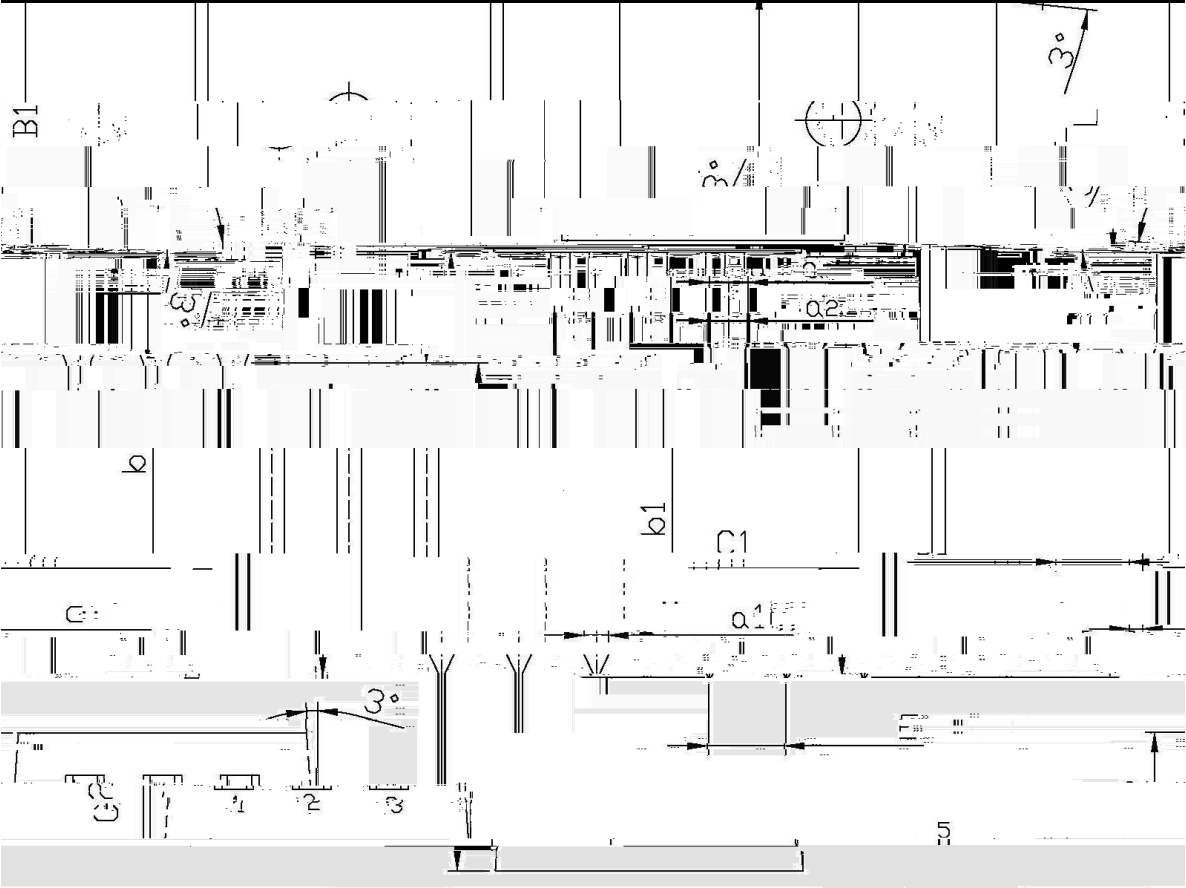
/ Electrical Characteristic Curve



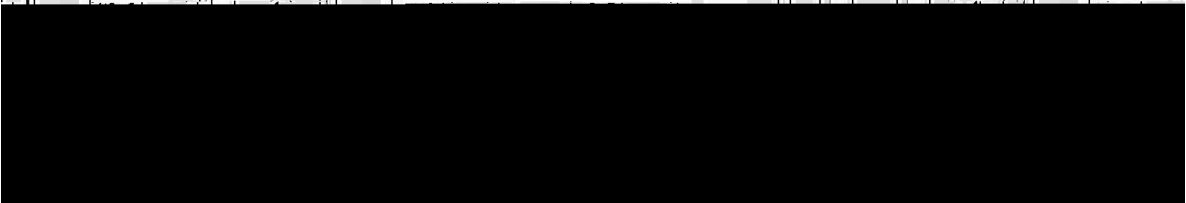
/ Electrical Characteristic Curve



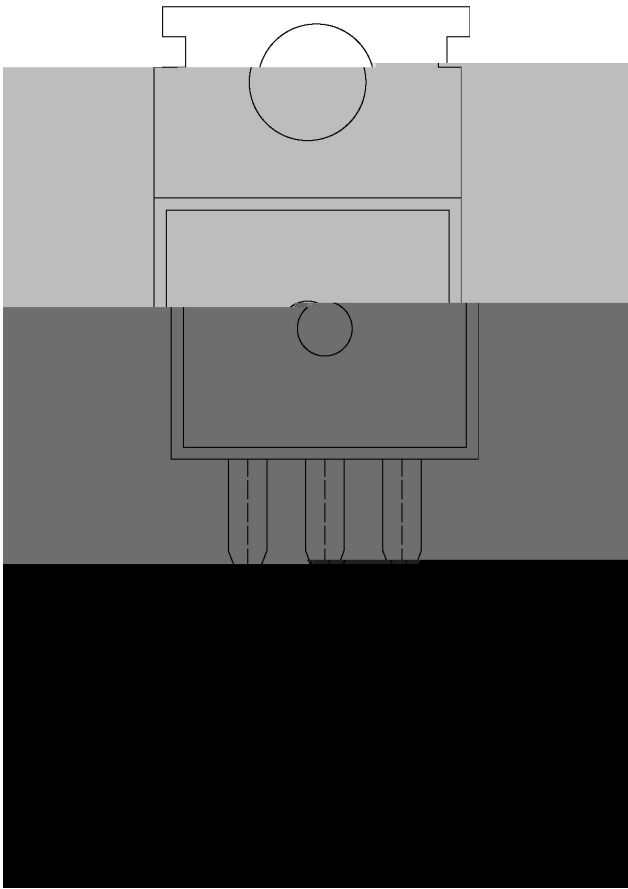
/ Package Dimensions



Dimensions in Millimeters			Dimensions in Inches		
Symbol	Min	Max	Symbol	Min	Max
C	1.2	1.4	A	9.8	10.2
B	6.3	6.7	R	3.56	3.64
W	9.4	9.4	L	15.7	16.1
C1	2.2	2.6	b	12.6	13.6



/ Marking Instructions



EU	Ꞥ	Ꞥ		
353N36V	Ꞥ	N		
****	Ꞥ	N	N	

Note:

BR:	Company Code
020N06S:	Product Type Code020020N

() / Temperature Profile for Dip Soldering(Pb-Free)

- 1

25 150

60 90sec;

1.Preheating:25~150 , Time:60~90sec.
- 2

255±5

⌚ 5±0.5sec;

2.Peak Temp.:255±5 , Duration:5±0.5sec.
- 3

⌚ 2 10