

# **BRCS150N10SZCQ**

Rev.A Apr.-2024

**DATA SHEET**

/ Absolute Maximum Ratings( $T_a=25$  )

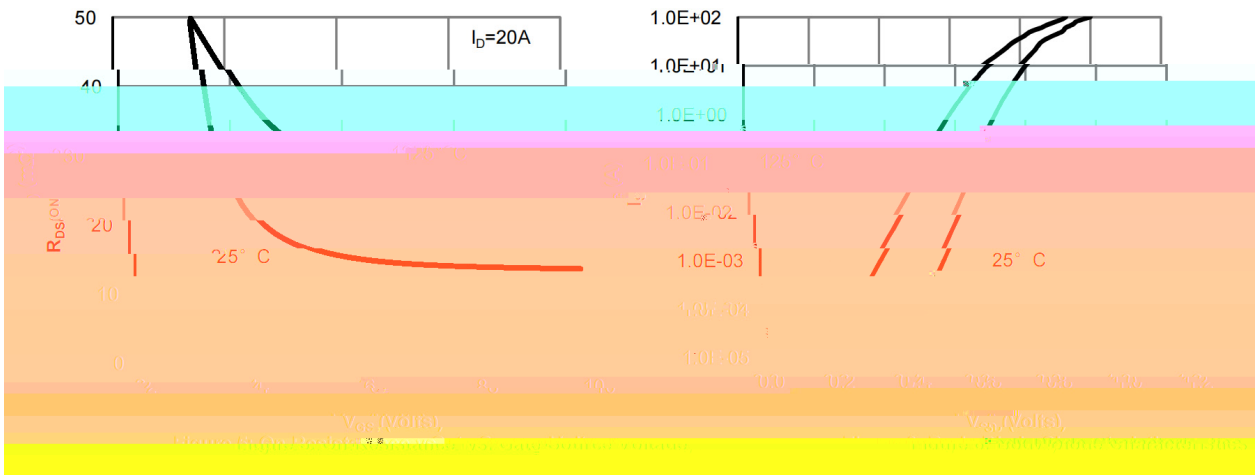
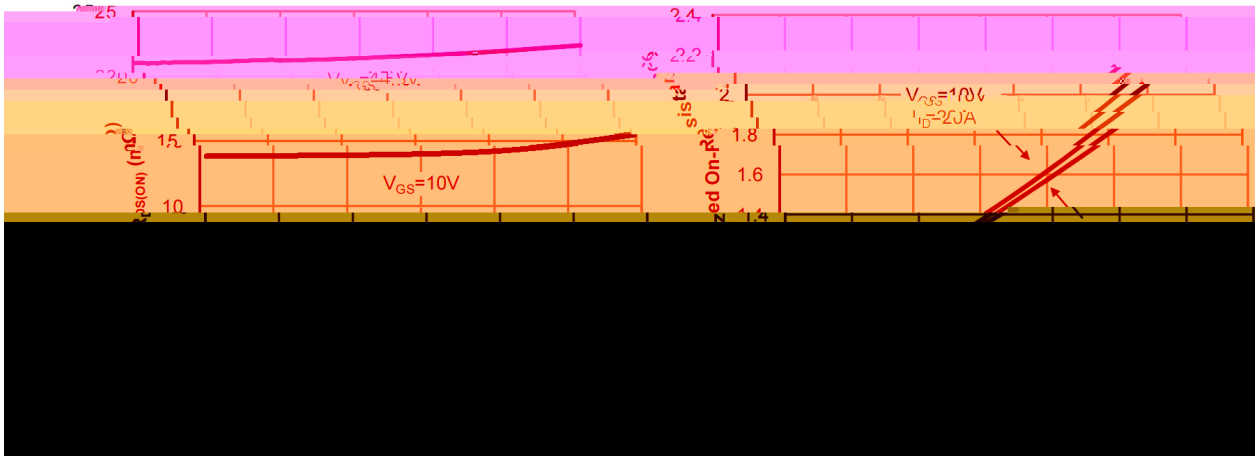
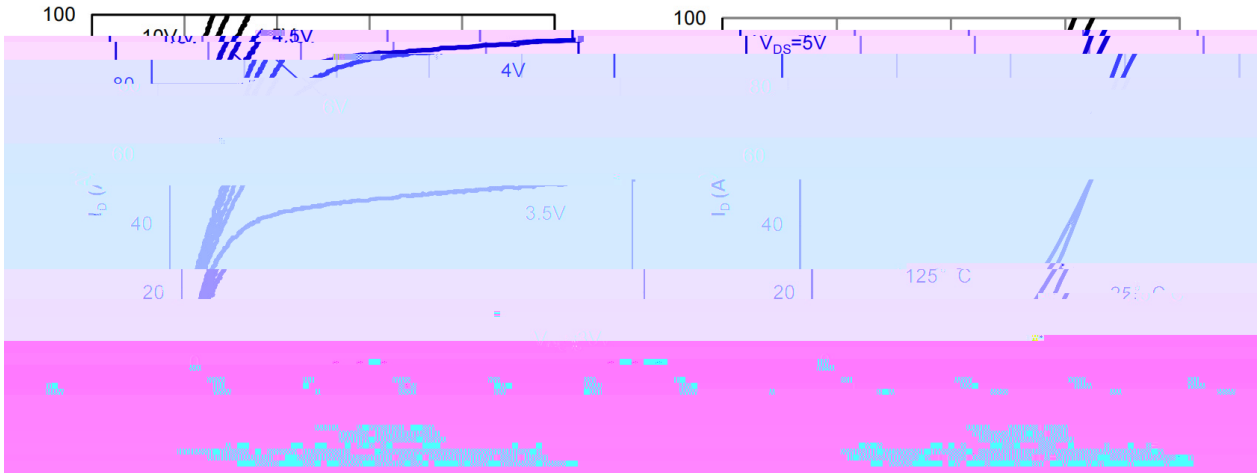
Parameter	Symbol	Rating	Unit	
Drain-Source Voltage	$V_{DS}$	100	V	
Continuous Drain Current	$I_D$	46	A	
Pulsed Drain Current	$I_{DM}$	184	A	
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V	
Power Dissipation	$P_D(T_c=25)$	78	W	
Avalanche energy(L=0.5mH)	$E_{AS}$	24.5	mJ	
Avalanche Current(L=0.5mH)	$I_{AS}$	7.0	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	

/ Electrical Characteristics( $T_a=25$  )

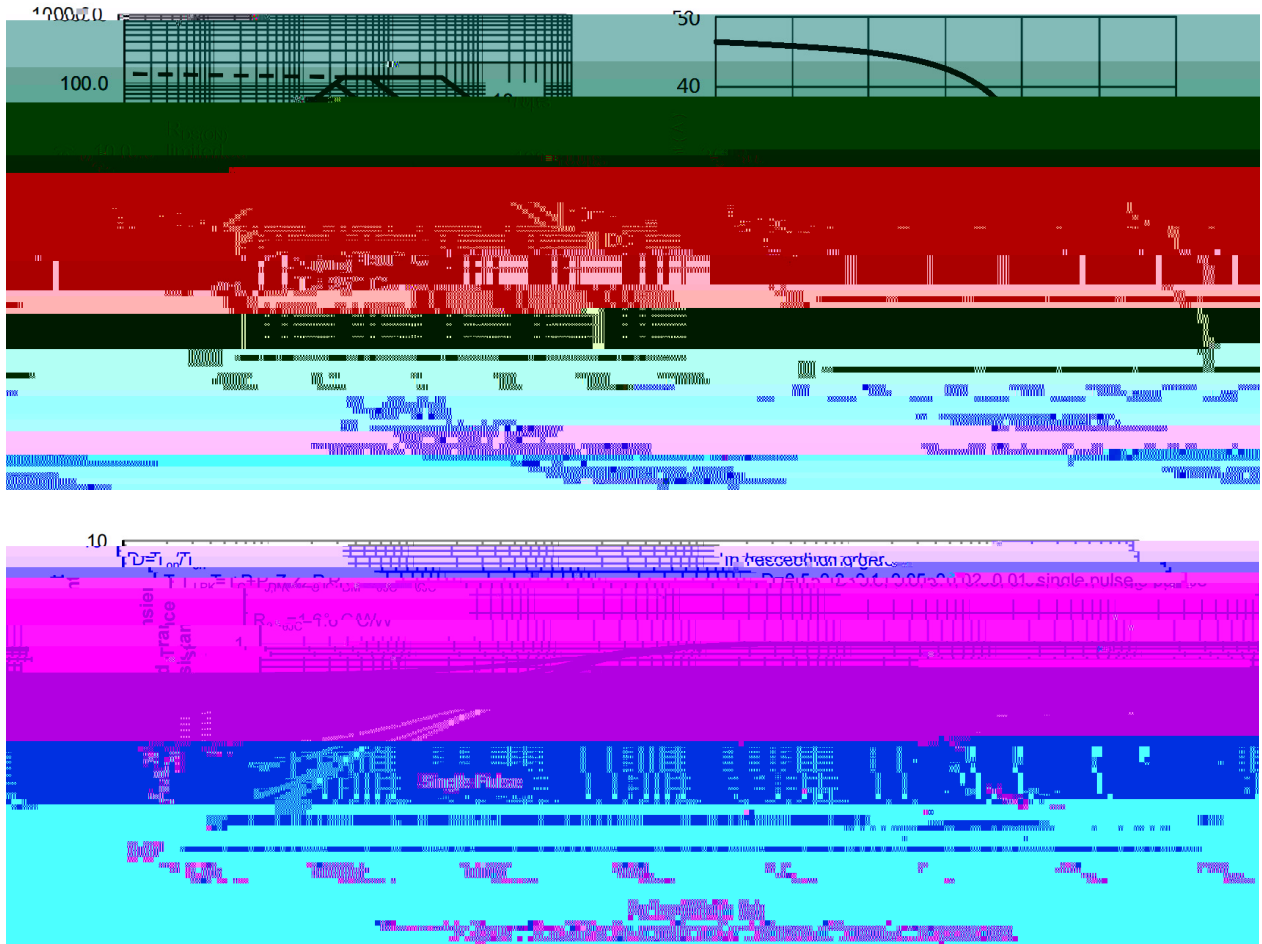
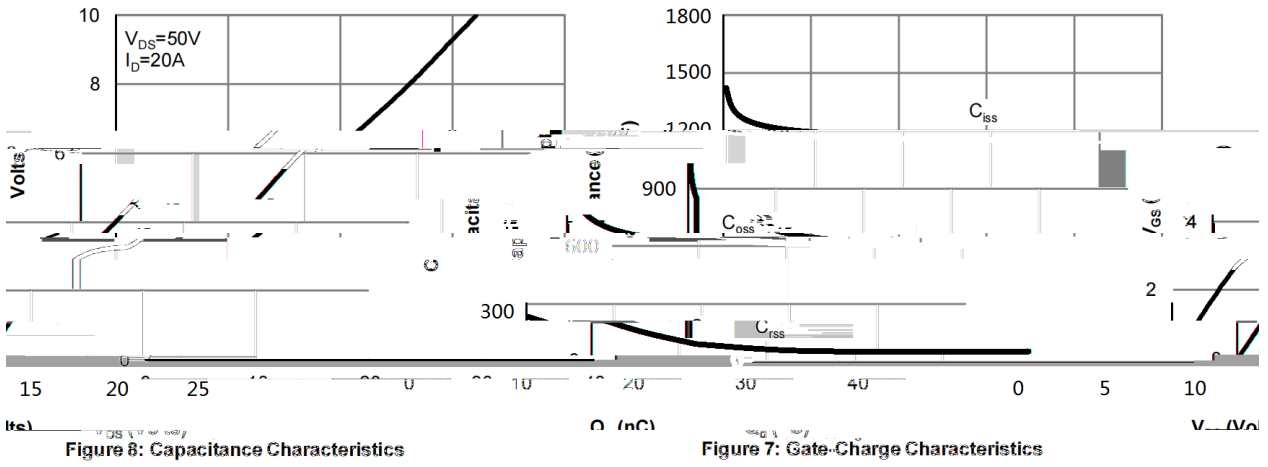
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$I_D=250\mu A, V_{GS}=0V$	100	109		V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=100V, V_{GS}=0V$			1	$\mu A$
Gate-Body leakage current	$I_{GSS}$	$V_{DS}=0V, V_{GS}=\pm 20V$			$\pm 100$	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	1.0	1.7	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V, I_D=20A$		14.8	15	m
		$V_{GS}=4.5V, I_D=10A$		20.4	25	
Diode Forward Voltage	$V_{SD}$	$I_S=1A, V_{GS}=0V$			1.2	V
Input Capacitance	$C_{iss}$	$V_{DS}=25V, V_{GS}=0V, f=1.0MHz$		1140		pF
Output Capacitance	$C_{oss}$			600		
Reverse Transfer Capacitance	$C_{rss}$			60		
Gate resistance	$R_g$	$V_{GS}=0V, V_{DS}=0V, f=1MHz$		1.6		
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10V, V_{DS}=50V, I_D=20A$		32.5		nC
Total Gate Charge	$Q_{g(4.5V)}$			15.5		
Gate Source Charge	$Q_{gs}$			6.5		
Gate Drain Charge	$Q_{gd}$			5		

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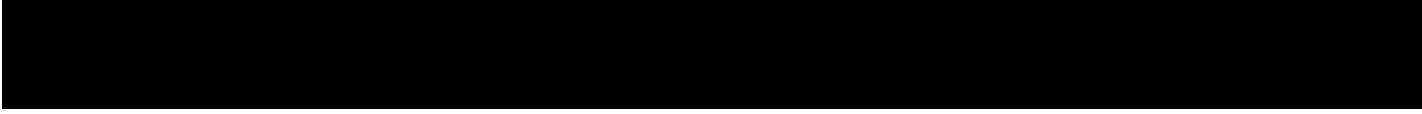
**/ Electrical Characteristic Curve**



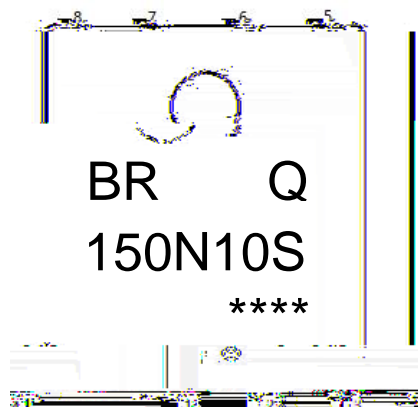
/ Electrical Characteristic Curve



**/ Package Dimensions**



**/ Marking Instructions**



BR

Q

150N10S

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Note

BR

Company Code

Q:

Automobile halogen-free product Code

150N10S

Product Type Code

\*\*\*\*:

Lot No. Code, code change with Lot No

# BRCS150N10SZCQ

Rev.A Apr.-2024



蓝箭电子  
BLUE ROCKET ELECTRONICS

DATA SHEET

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### Note:

- 1            150 200            60 120sec;    1.Preheating:150~200 , Time:60~120sec.
- 2            255±5                    5±0.5sec;    2.Peak Temp.:255±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 Units/Reel	Dimension (unit mm <sup>3</sup> )
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