

BRCS065N08SHBD

Rev.A Sep.-2022



DATA SHEET

TO-263

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Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	80	V
Drain Current		$I_D(T_c=25^\circ C)$	115	A
Pulsed Drain Current		I_{DM}	241	A
Gate-Source Voltage		V_{GS}	w 20	V
Single Pulsed Avalanche Energy(L=0.5mH)		E_{AS}	710	mJ
Avalanche Current		I_{AS}	36.5	A
Total Power Dissipation		$P_D(T_c=25^\circ C)$	156.2	W
Junction and Storage Temperature Range		T_J, T_{STG}	-55 to 150	
Thermal Resistance-Junction to Ambient	t 10s	R_{JA}	15.5	/W
	Steady-State		62.5	
Thermal Resistance-Junction to Case	Steady-State	R_{JC}	0.8	

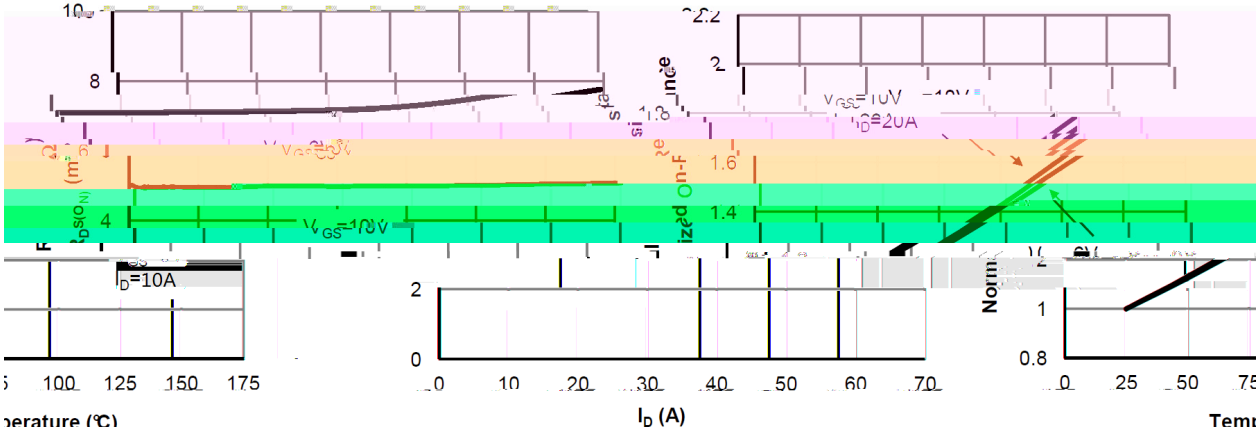
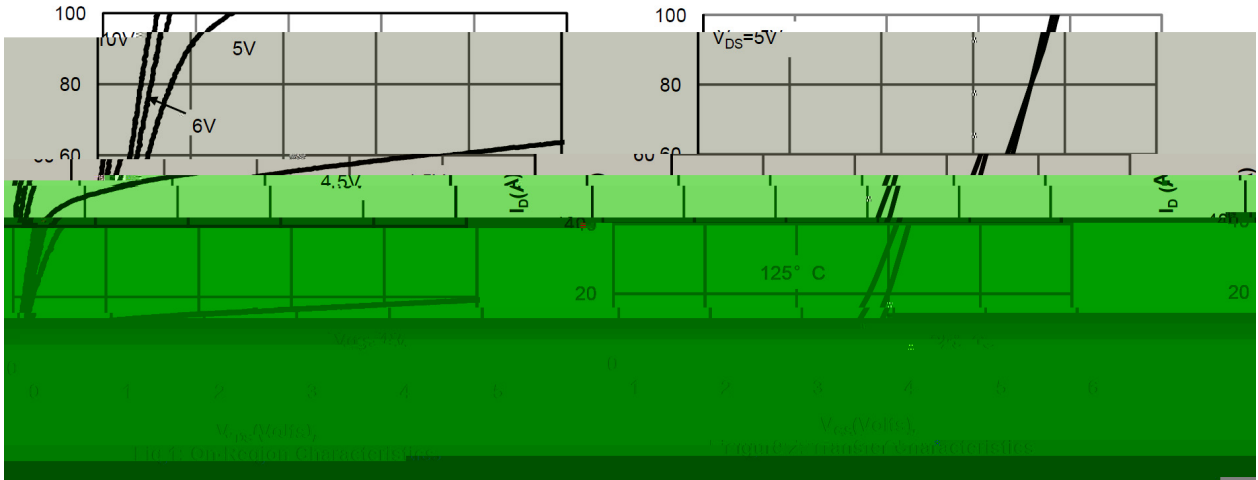
Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$	$I_D=250\mu A$	80	95		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=85V$	$V_{GS}=0V$			1	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$	$V_{DS}=0V$			w 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$	$I_D=250\mu A$	2	3	4	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$	$I_D=20A$		5.1	6.5	m
	$R_{DS(on)}$	$V_{GS}=6V$	$I_D=10A$		7.0	10	
Forward On Voltage	V_{SD}	$V_{GS}=0V$	$I_S=1A$			1.2	V
Gate resistance	R_g	$f=1MHz$			1.4		
Input Capacitance	C_{iss}	$V_{DS}=25V$ $f=1MHz$	$V_{GS}=0V$		3230		pF
Output Capacitance	C_{oss}				1310		
Reverse Transfer Capacitance	C_{rss}				185		
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10V,$ $I_D=20A$	$V_{DS}=40V,$		46		nC
Gate Source Charge	Q_{gs}				13		
Gate Drain Charge	Q_{gd}				8.5		

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Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ V_{DS}				

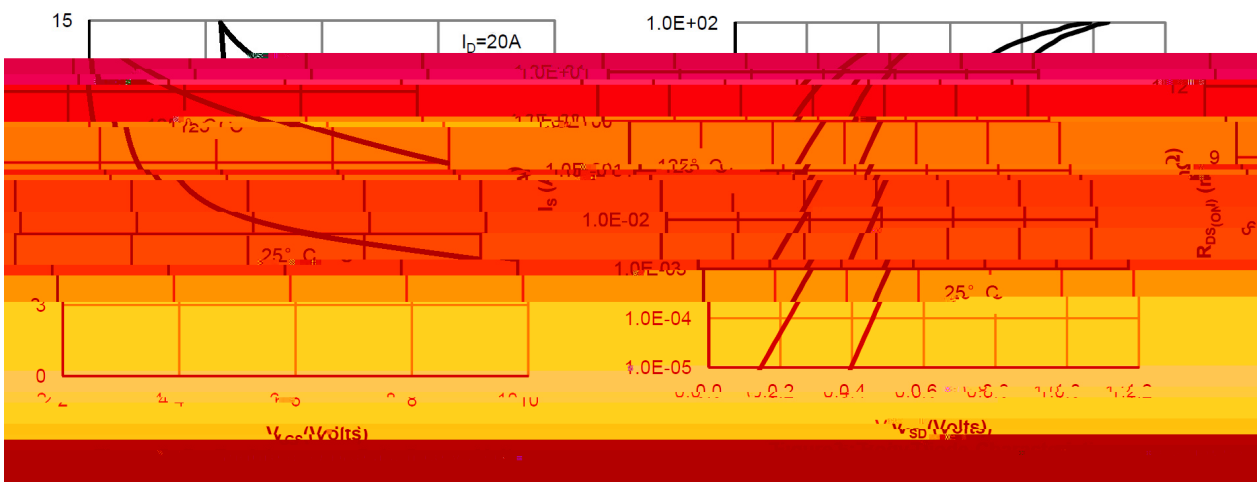
/ Electrical Characteristic Curve



Temperature (°C)
Stage

Figure 3: On-Resistance vs. Drain Current and Gate Voltage

Figure 4: On-Resistance vs. Drain Current and Gate Voltage

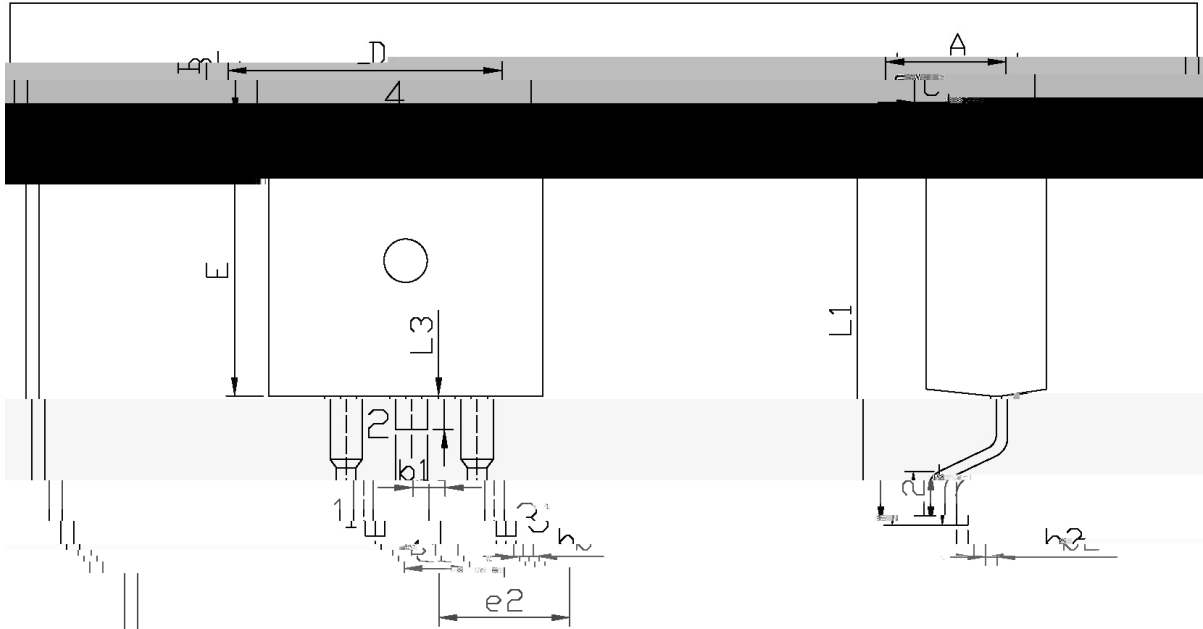


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/ Package Dimensions

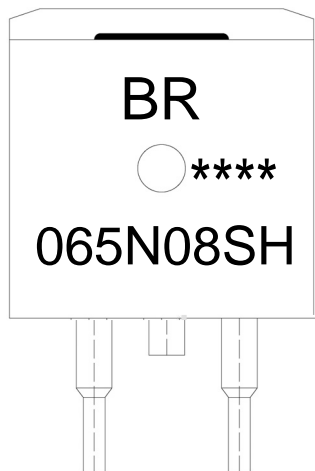


单位: mm

Dimensions in Millimeters

Symbol	Dimensions in Millimeters	Symbol	Dimensions in Millimeters
A	4.30 - 4.70	E	9.00
B	1.00 - 1.40	L1	9.00
C	0.00 - 0.00	L2	0.00
D	0.00 - 0.00	L3	0.00
E	0.00 - 0.00	h1	0.00
F	0.00 - 0.00	h2	0.00
G	0.00 - 0.00	h3	0.00
H	0.00 - 0.00	e1	0.00
I	0.00 - 0.00	e2	0.00

/ Marking Instructions



BR

065N 08SH

Note:

BR: Company Code

065N08SH: Product Type

****: Lot No. Code, code change with Lot No

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