

BRCS100N06BD

/ Absolute Maximum Ratings(Ta=25)

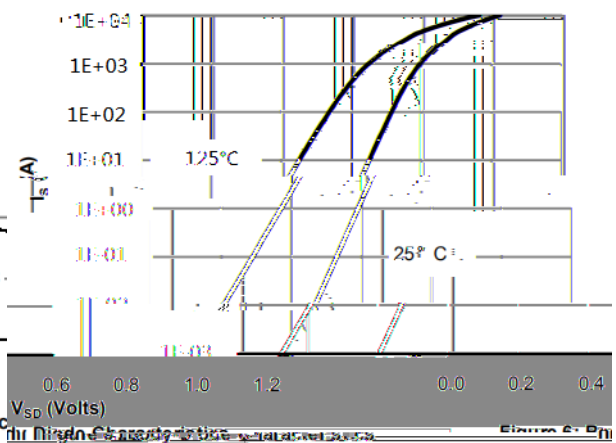
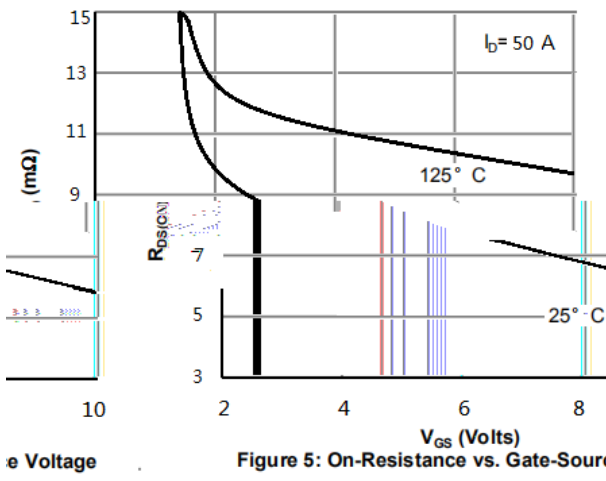
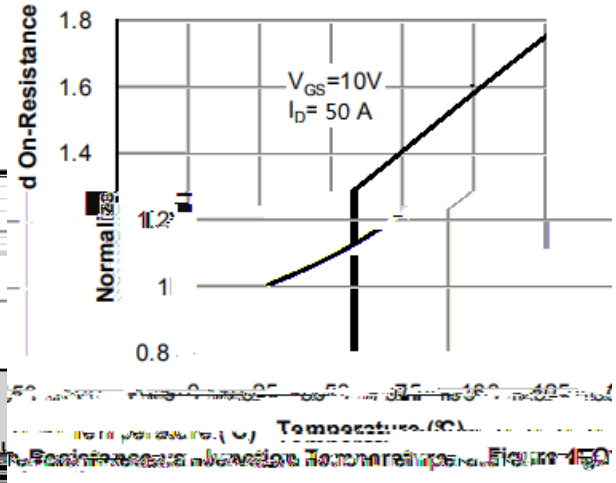
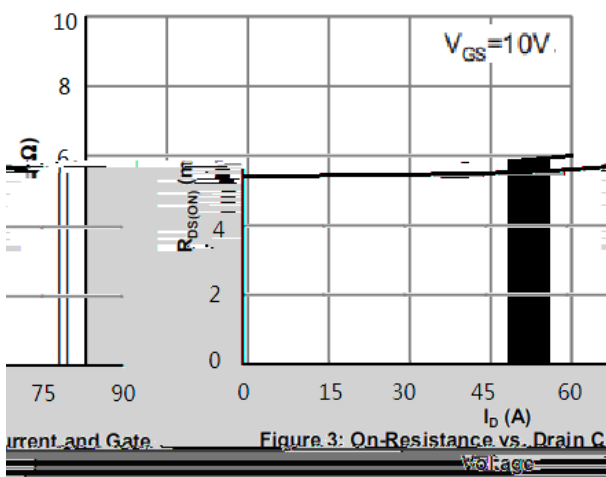
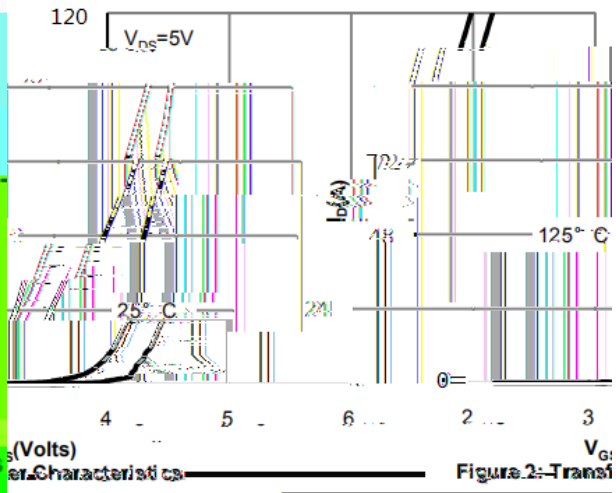
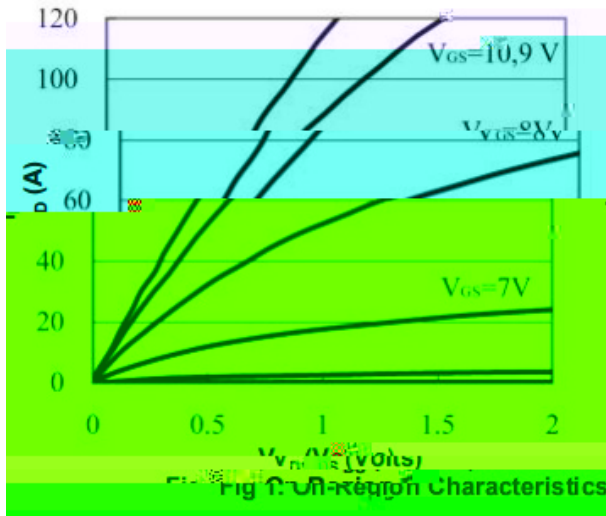
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	60	V
Drain Current	$I_D(T_C=25)$	100	A
Peak Drain Current	I_{DM}	380	A
Gate-Source Voltage	V_{GSS}	± 20	V
Single Pulsed Avalanche Energy	E_{AS}	602	mJ
Avalanche Current	I_{AS}	38.9	A
Total Power Dissipation	$P_D(T_C=25)$	188	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	
Thermal Resistance-Junction to Case	R_{JC}	0.8	/W
Thermal Resistance-Junction to Ambient	R_{JA}	62.5	

/ Electrical Characteristics(Ta=25)

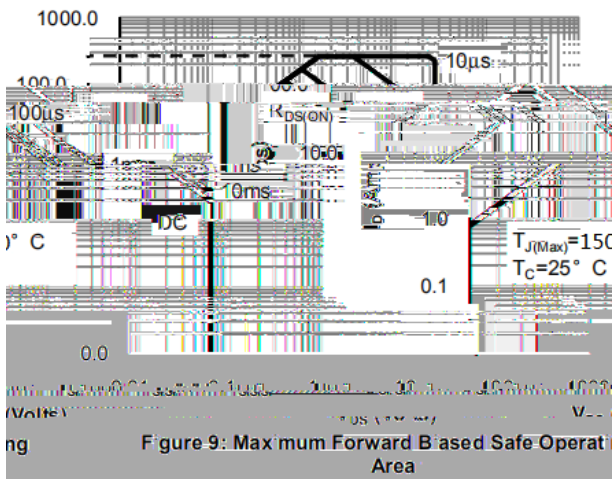
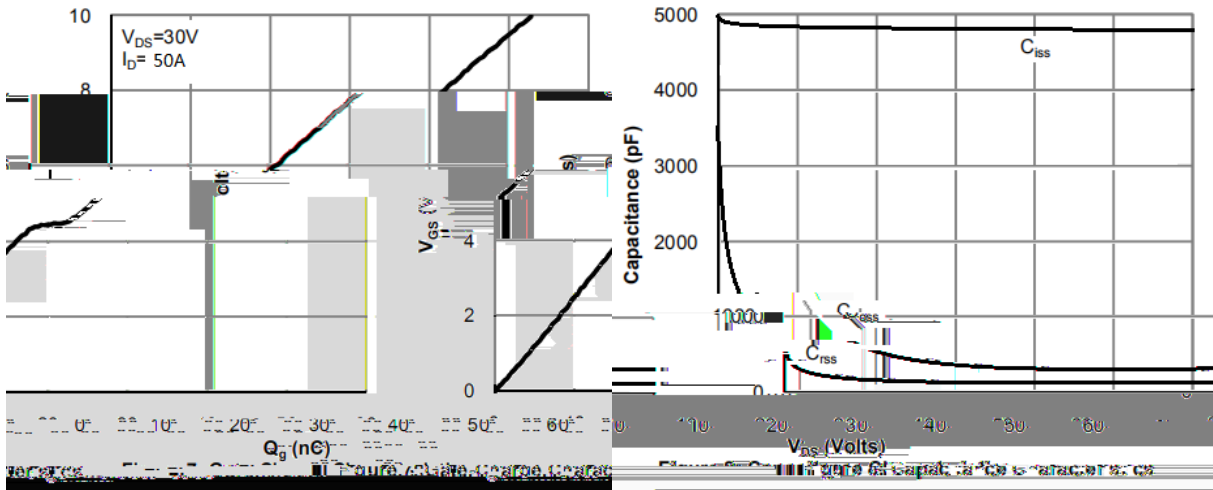
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250$ A	60			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60V$ $V_{GS}=0V$			1	A
		$V_{DS}=60V$ $V_{GS}=0V$ $T_J=125$			10	A
Gate-Body leakage current	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250$ A	2	2.6		
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=10V$ $I_D=50A$		5.9	7	m

Parameter	Symbol
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/ Electrical Characteristic Curve

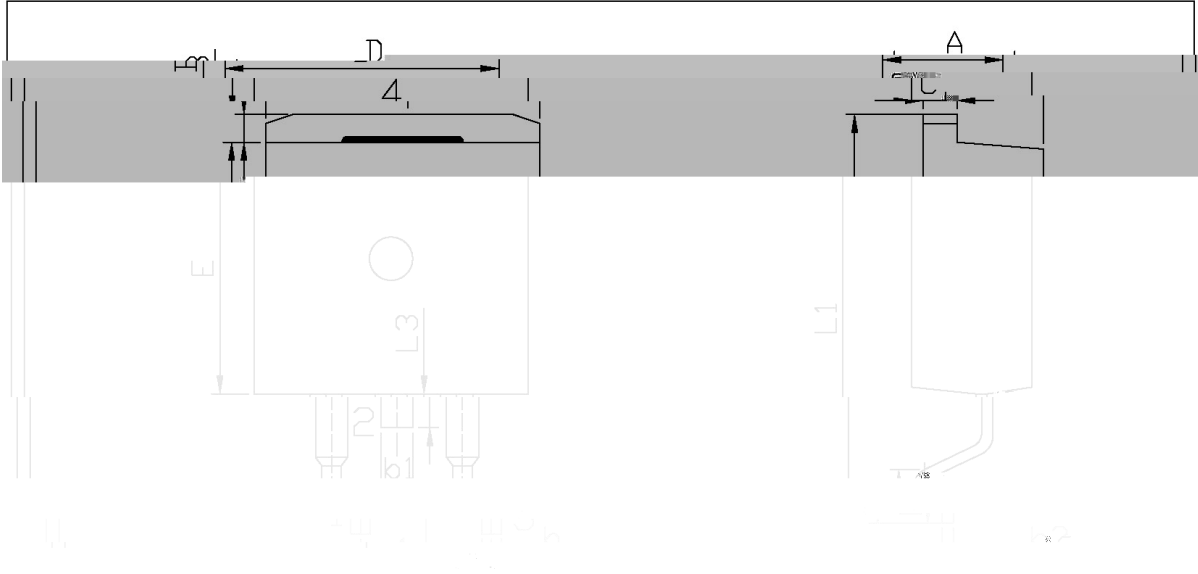


/ Electrical Characteristic Curve



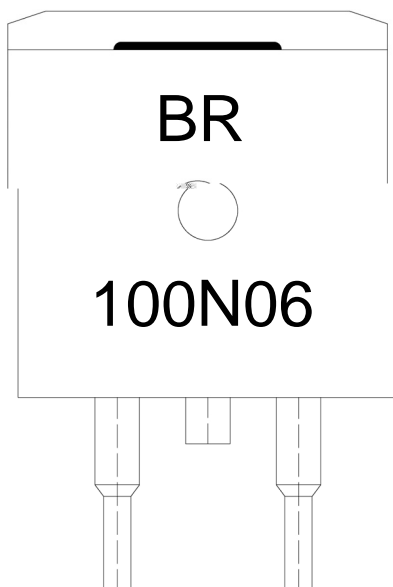
Duty Cycle (D)	Notes
0.5, 0.3, 0.1, 0.05, 0.02, 0.01, single pulse	In descending order

/ Package Dimensions



Max		Min		Max		Min	
4.40		4.30		4.70		4.60	
2.74		L.00		L.40		2.24	
15.00	16.00	b1	1.15	1.35	L1		
2.24	2.84	b2	0.40	0.60	L2		
1.20	1.60	C	1.20	1.40	L3		
		D	9.80	10.20			

/ Marking Instructions



BR

100N06

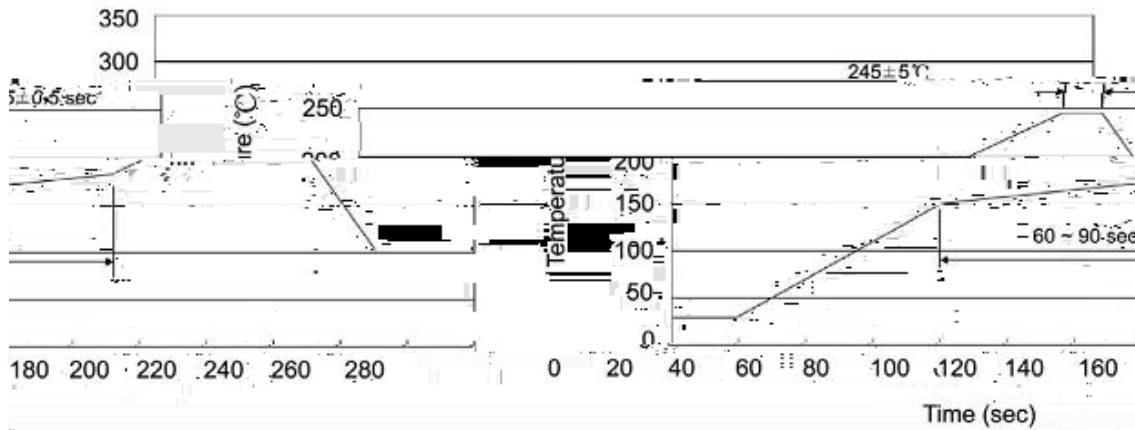
Note:

BR: Company Code

100N06: Product Type.

****: 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.

/ BULK

Package Type	Units	Dimension
g m d E (unit ! mm ³)	g m d E (unit ! mm ³)	g m d E (unit ! mm ³)