

BRCS020N04BDQ

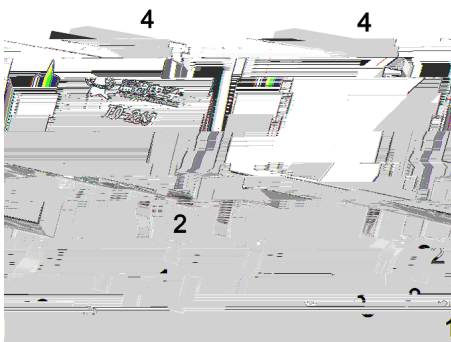
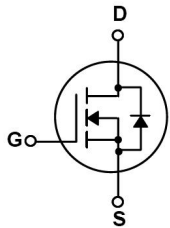
Rev.A Apr.-2023

TO-263 N
N-CHANNEL MOSFET in a TO-263 Plastic Package.

8<: \$H(' (L ðiX`Cf n `F e\$ \j`j kXeZ\#Xj kjn `kZ_`e^#HI Xc]\[`kf `8<: \$H(' (`JkXe[Xi[j `]fi`? `^_`I \cXY`ckp# ? =`Gif [I Zk%

G=:

These devices are well suited for high efficient switched mode power supplies Active power factor correction, electronic lamp ballast based on half bridge topology, Meet the stringent requirements of automotive applications.



PIN1 G PIN 2 4 D PIN 3 S

/ Marking

See Marking Instructions.

BRCS020N04BDQ

Rev.A Apr.-20



蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	40	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	120	A
Peak Drain Current	I_{DM}	480	A
Gate-Source Voltage	V_{GS}	± 20	V
Single Pulse Avalanche Energy	E_{AS}	482	mJ
Avalanche Current	I_{AS}	35	A
Total Power Dissipation	$P_D(T_C=25^\circ\text{C})$	187	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 175	
Thermal Resistance-Junction to Case	R_{JA}	$t \leq 10\text{s}$	15
		Steady-State	60
Thermal Resistance-Junction to Case	R_{JC}	0.7	$^\circ\text{C/W}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	$V_{GS}=0\text{V}$ $I_D=250\text{ A}$	40	44		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=40\text{V}$ $V_{GS}=0\text{V}$			1	μA
Gate-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 20\text{V}$ $V_{DS}=0\text{V}$			1	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\text{ A}$	1	1	3	V

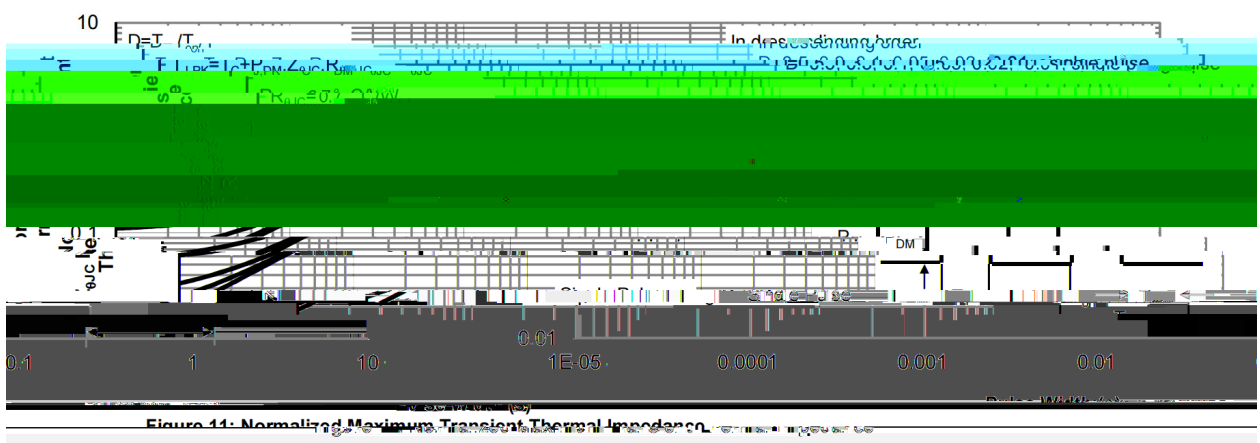
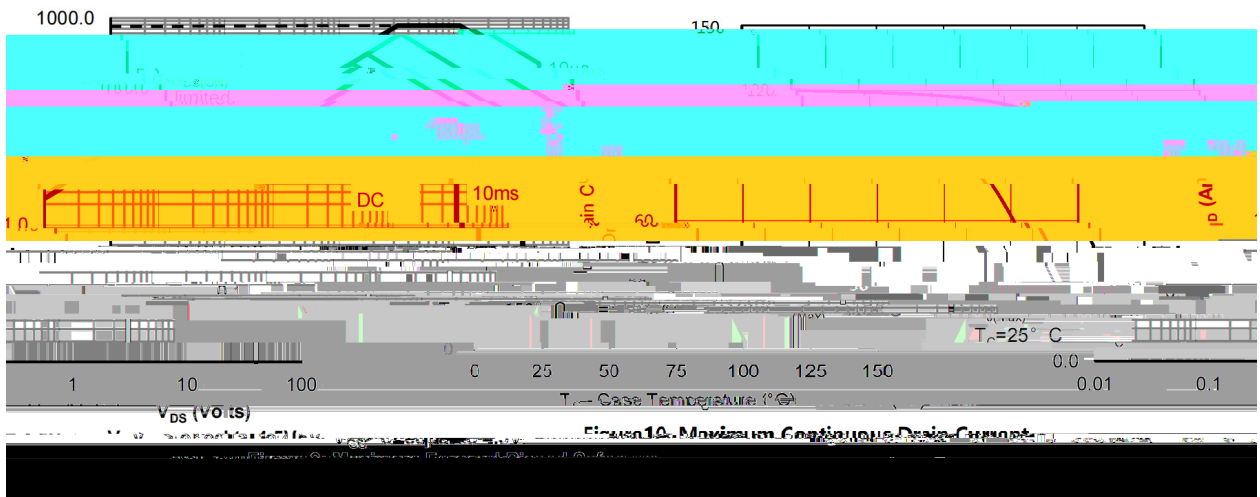
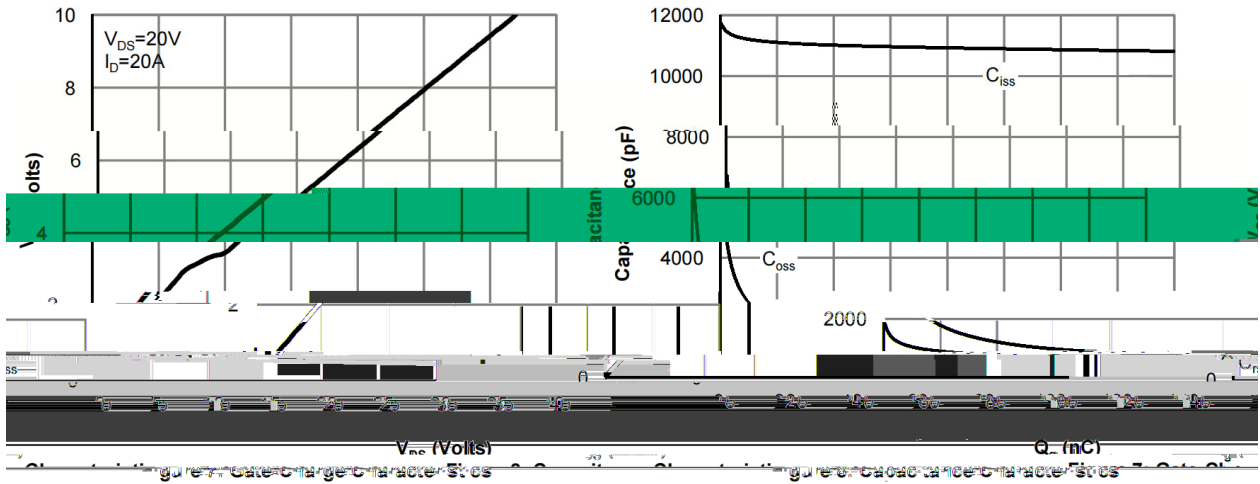
Static Drain-Source

BRCS020N04BDQ

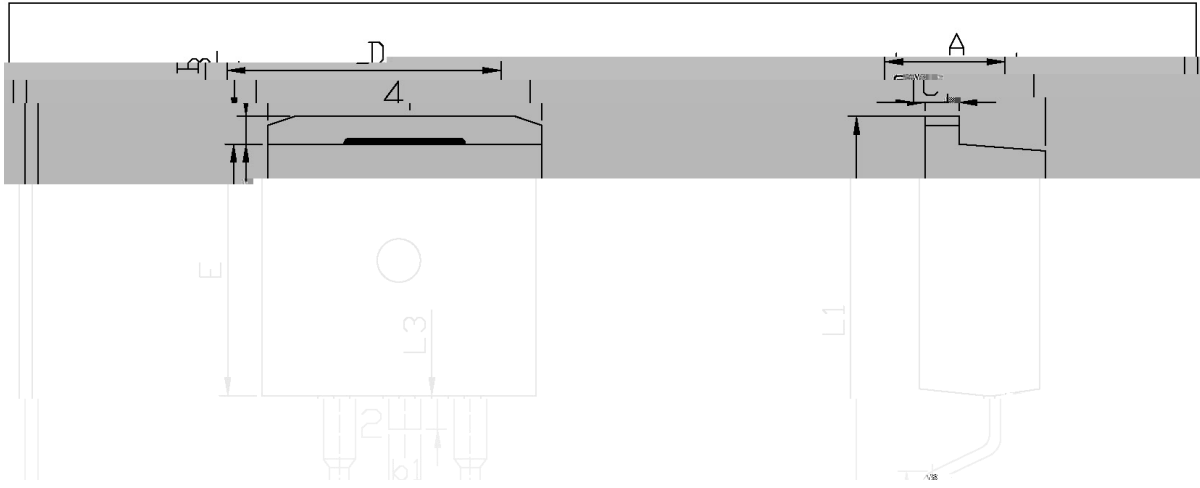
Rev.A Apr.-2023

DATA SHEET

/ Electrical Characteristic Curve



/ Package Dimensions



Max	Min	Max	Min
9.40	A 4.30	4.70	E 9.00
2.74	B 1.00	1.40	eL 2.34
16.00	b1 1.15	1.35	1.15
	D 9.80	10.20	

TP-263

BRCS020N04BDQ
Rev.A Apr.-2023

