

# BRCS020N04BD

Rev.B Sep.-2022

## 5 é / Descriptions

TO-263 .> // x N ?ú 3 « | •'ož

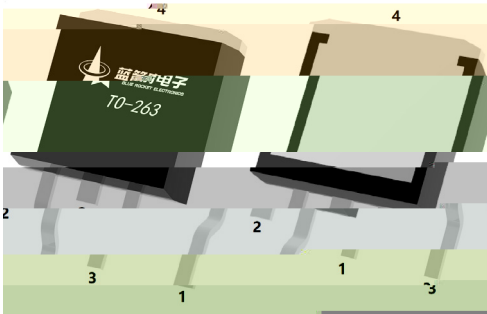
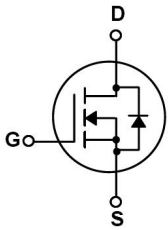
N-CHANNEL MOSFET in a TO-263 Plastic Package.

z Š •¼ , † ½ k —)í D }ož

; RZXG 2UJ 5T 8KY OYZGTIK. ,L 6XUJYI]D ZINOTM

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These devices are well suited for high efficient switched mode power supplies È Active power factor correction, electronic lamp ballast based on half bridge topology.



PIN 1 y G

PIN 2•4 y D

PIN 3 y S

## , M V / Marking

• - ~ ^ a øž See Marking Instructions.

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@ f Parameter	... Z Symbol	f › Rating	% y Unit
Drain-Source Voltage	$V_{DSS}$	40	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	120	A
Pulsed Drain Current	$I_{DM}$	480	A
Gate-Source Voltage	$V_{GS}$	-20	V
Single Pulsed Avalanche Energy L=0.5mH	$E_{AS}$	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 Ambient	$R_{\theta JA}$	15	- /W

@ *f*                      ... Z  
Parameter

Electrical Characteristic Curve

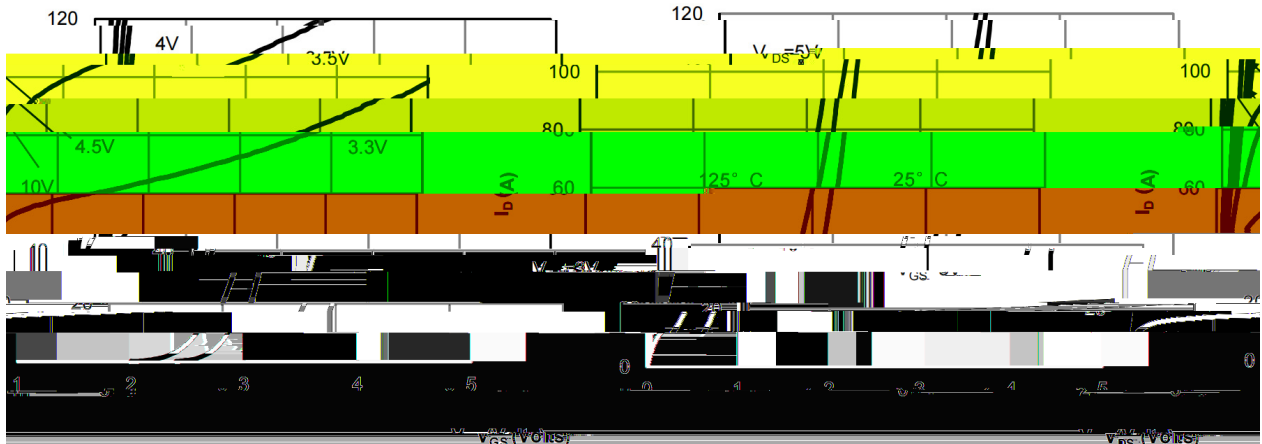
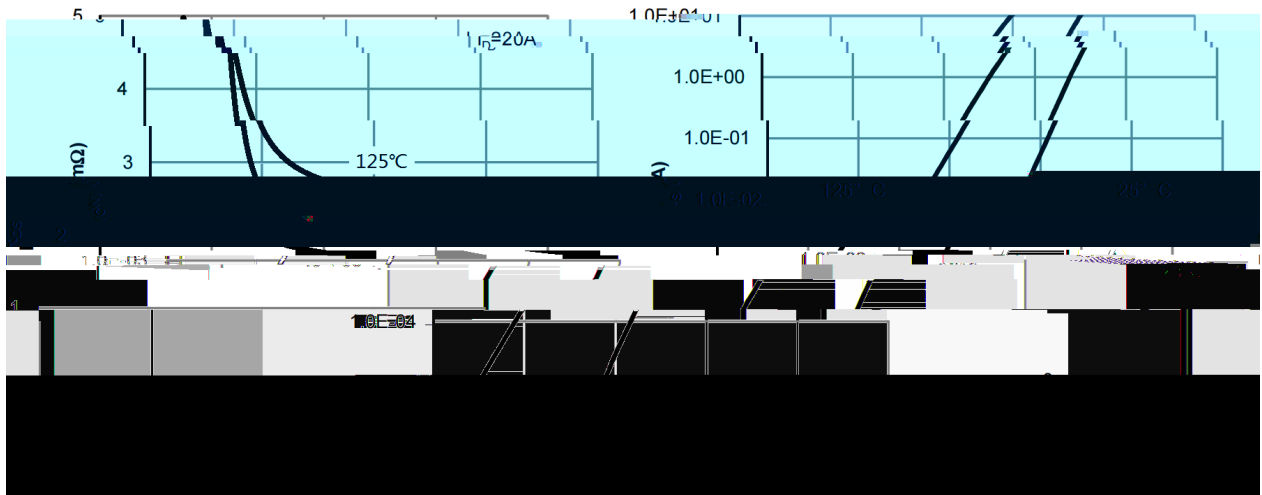
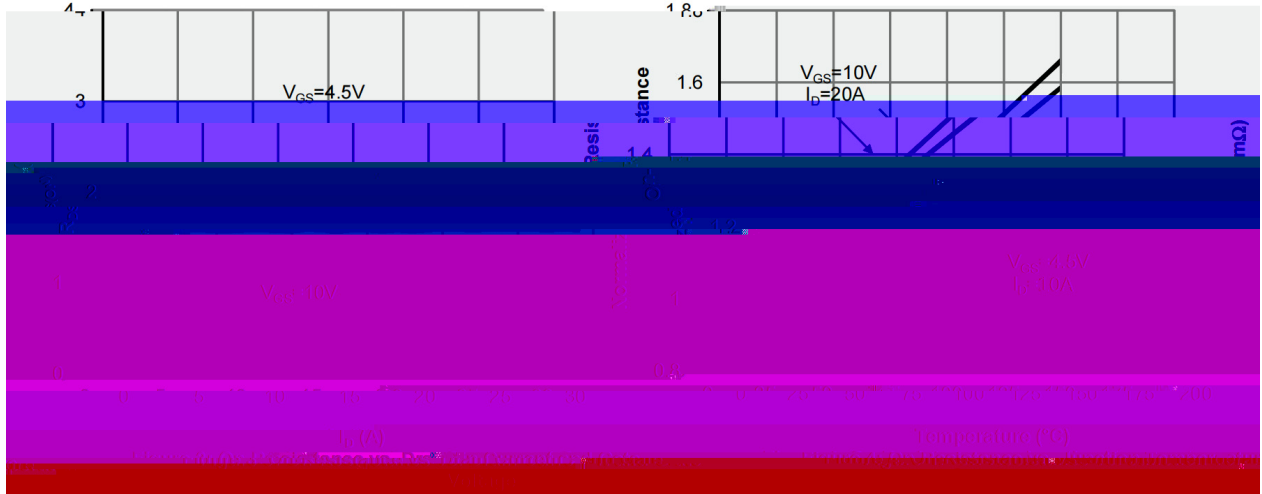
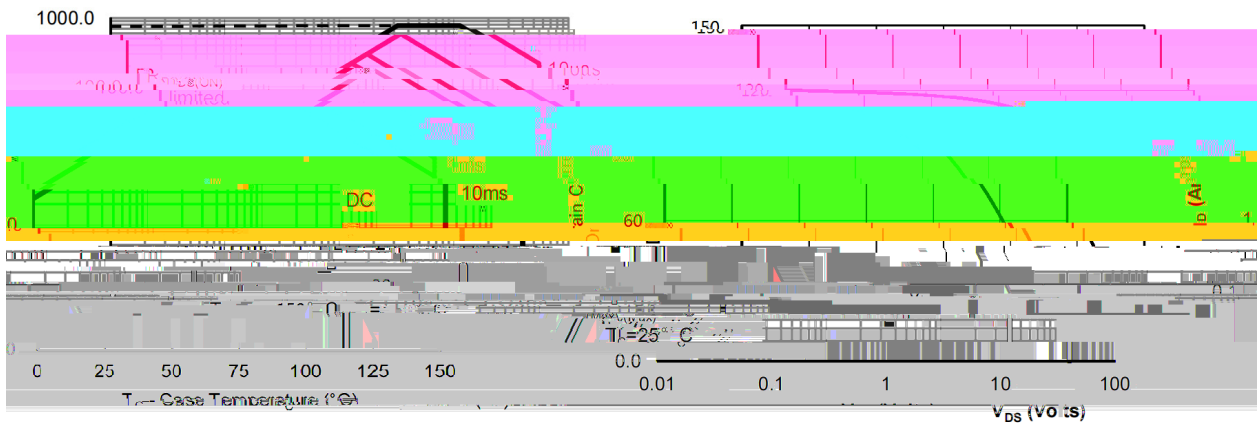
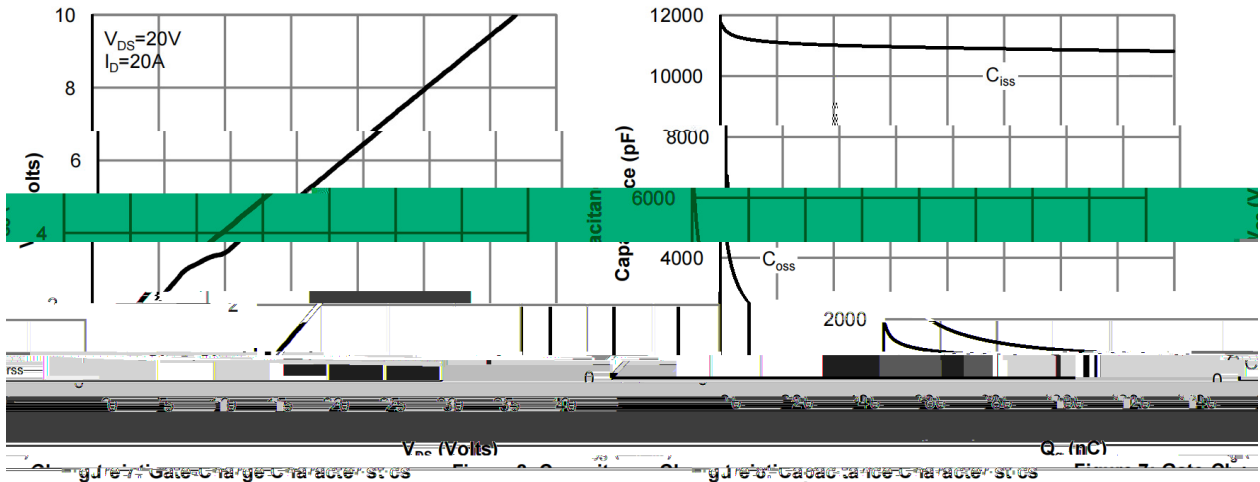


Figure 2: Transfer Characteristics

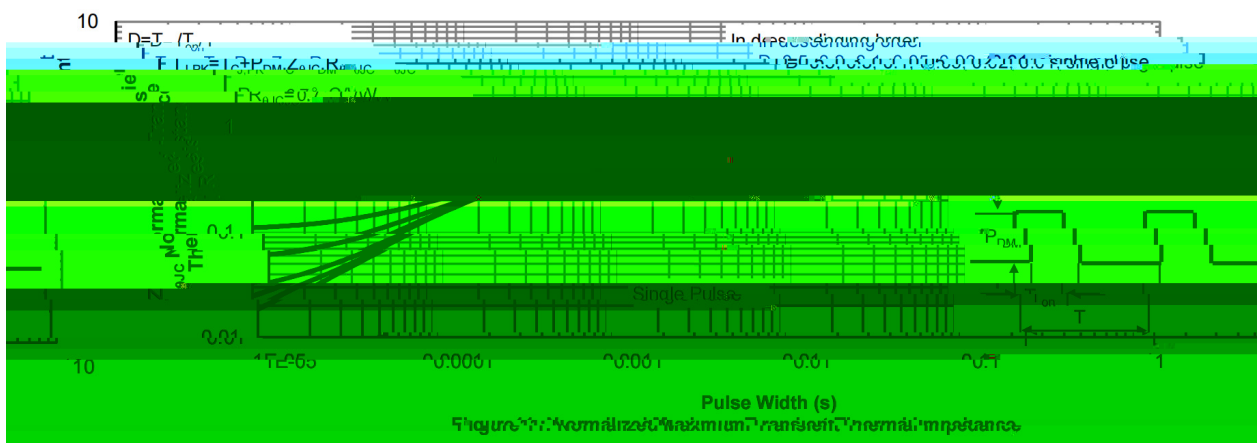
Figure 1: On-Region Characteristics



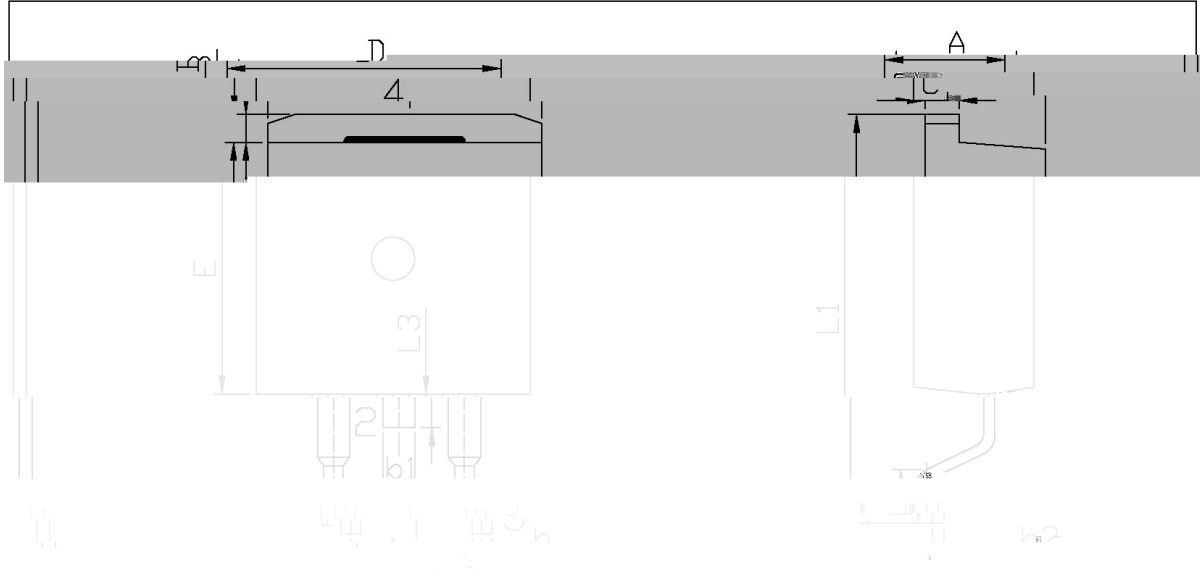
**Electrical Characteristic Curve**



**Figure 10. Maximum Continuous Drain Current**



$\varnothing \square = ) \phi$  / Package Dimensions



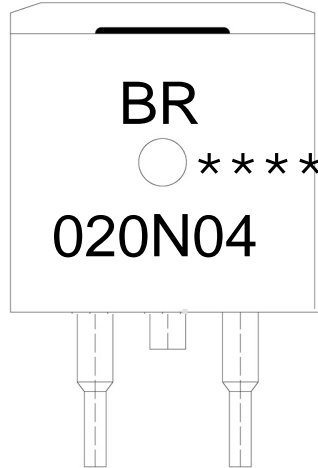
Max	Min	Max	Min
9.40	4.30	4.70	9.00
2.74	1.00	1.40	2.24
16.00	b1	1.15	1.35



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## , M y f / Marking Instructions



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Note:

BR: Company Code

020N04: Product Type

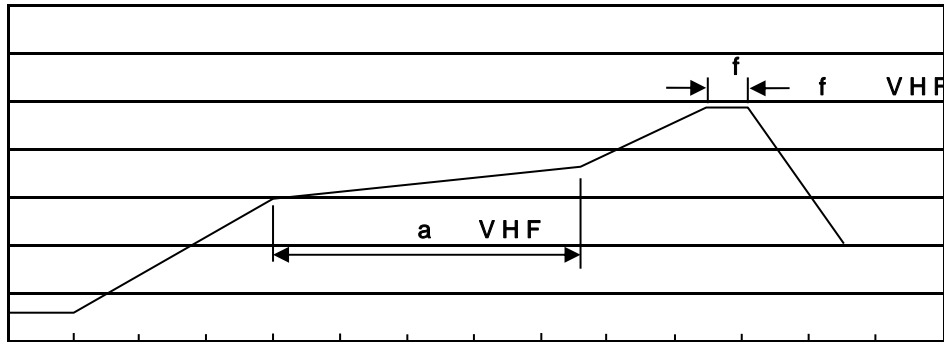
\*\*\*\*: Lot No. Code, code change with Lot No

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šWD t...•Žč (x/ ) / :KSVKXGZ[XK 6XULORK LUX /8 8KLRU] 9URJKXOTM 6

7HPSHUDWXUH



## 7LPH VHF

<sup>a</sup>čy

1•Ä½“† 150½180 - kž• 60½90sec;

2•Q›“† 245 r5 - kž•4 Ò 5 r0.5sec;

3•D N ò i Ò 0 , † 2½10 - /sec.

Note:

1.Preheating:150~180 - , Time:60~90sec.

2.Peak Temp.:245 r5 - , Duration:5 r0.5sec.

3. Cooling Speed: 2~10 - /sec.

## ÄD /Cã p ~ » ] / Resistance to Soldering Heat Test Conditions

“†y 260 r5 -

ž•y 10 r1 sec.

Temp.:260~5

Time:10~1 sec

## G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ~ E	Units ;>û iH					Dimension ;>û p . (unit Åmm <sup>3</sup> )		
	Units/Reel /•1x	Reels/Inner Box •1x Å	Units/Inner Box Å	Inner Boxes/Outer - Åç	Units/Outer Åç	Reel	Inner Box	Outer Box
TO-263	800	1	800	6	4,800	13 s Å24	360Å360Å50	380Å335Å866

ì' x / TUBE

Package Type 7>û ~ E	Units ;>û iH					Dimension ;>û p . (unit Åmm <sup>3</sup> )		
	Units/Tube /•1x	Tubes/Inner Box •1x Å	Units/Inner Box Å	Inner Boxes/Outer - Åç	Units/Outer Åç	Tube•1x	Inner Box	Outer Box
TO-263	50	20	1,000	5	5,000	532Å337.0	555Å164Å50	575Å290Å180

## „Ð y f / Notices