

BRCS040N03DP

Rev.A Dec. -2021

/ Descriptions

TO-252 N MOS

N-CHANNEL MOSFET in a TO-252 Plastic Package.

/ Features

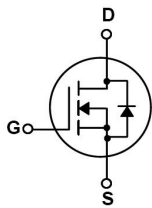
Low gate charge, low crss, fast switching, HF Product.

/ Applications

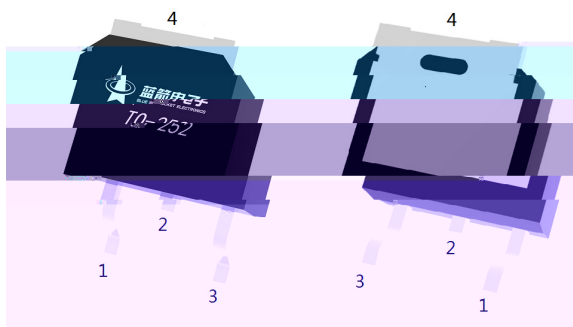
DC/DC

These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.

/ Equivalent Circuit



/ Pinning



PIN1 G

PIN 2 D

PIN 3 S

PIN 4 D

/ Marking

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Drain Current	$I_D(T_c=25^\circ\text{C})$	85	A
Peak Drain Current	I_{DM}	280	A
Gate-Source Voltage	V_{GS}	20	V
Avalanche Current	I_{AS}	26	A
Single Pulsed Avalanche Energy	E_{AS}	354	mJ
Total Power Dissipation	$P_D(T_c=25^\circ\text{C})$	100	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^\circ\text{C}$
Thermal resistance, junction to ambient $t \leq 10\text{s}$	$R_{\theta JA}$	20	$^\circ\text{C/W}$

Electrical Characteristic Curve

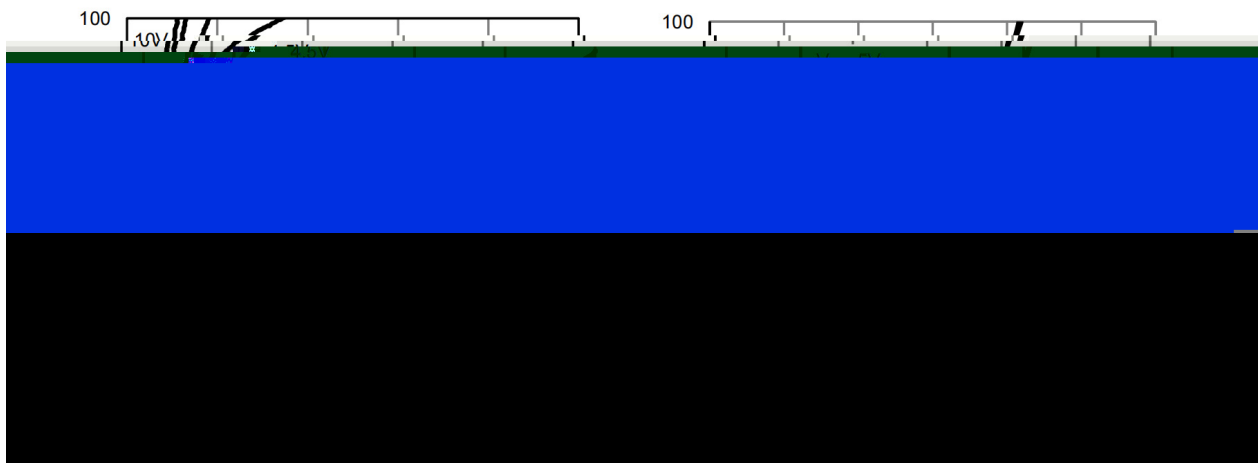
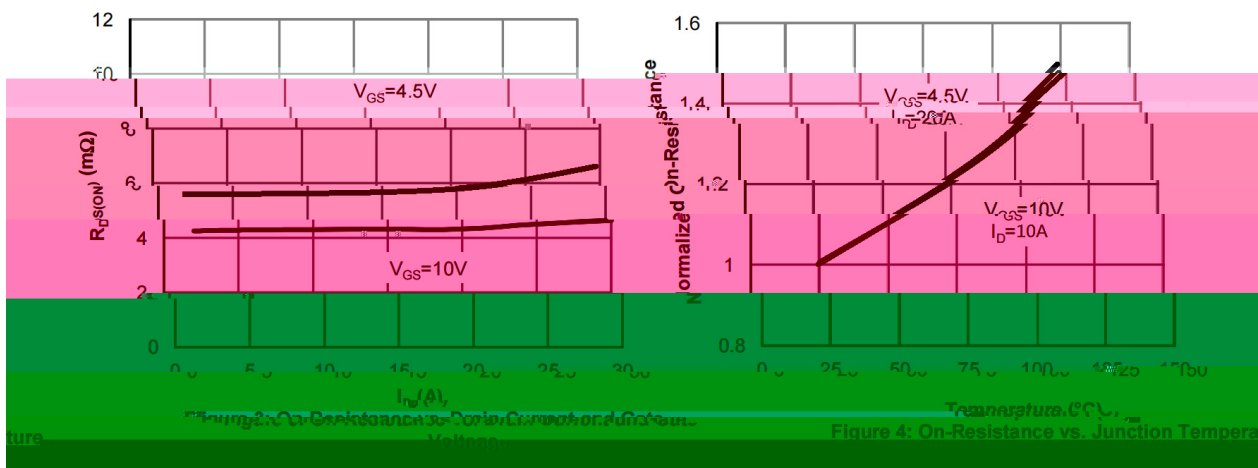
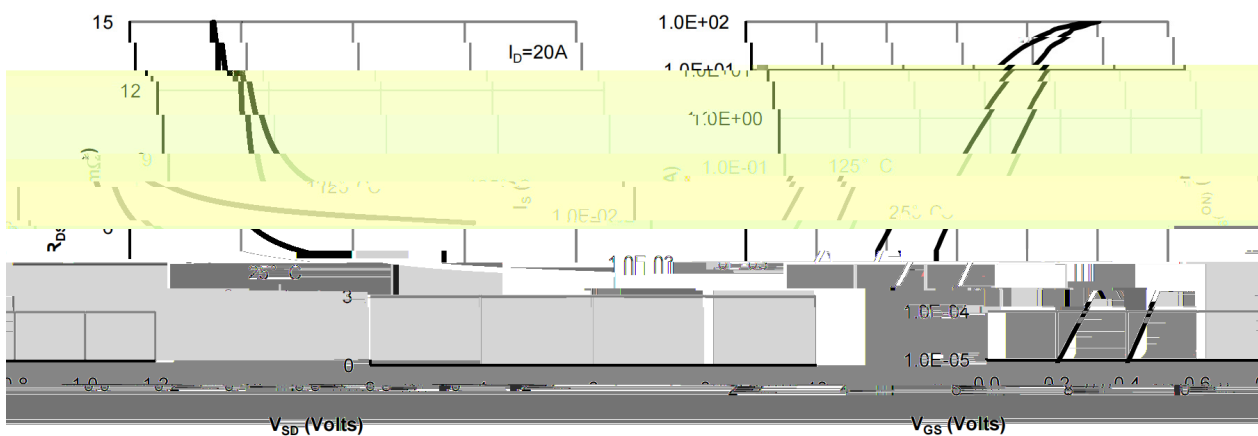
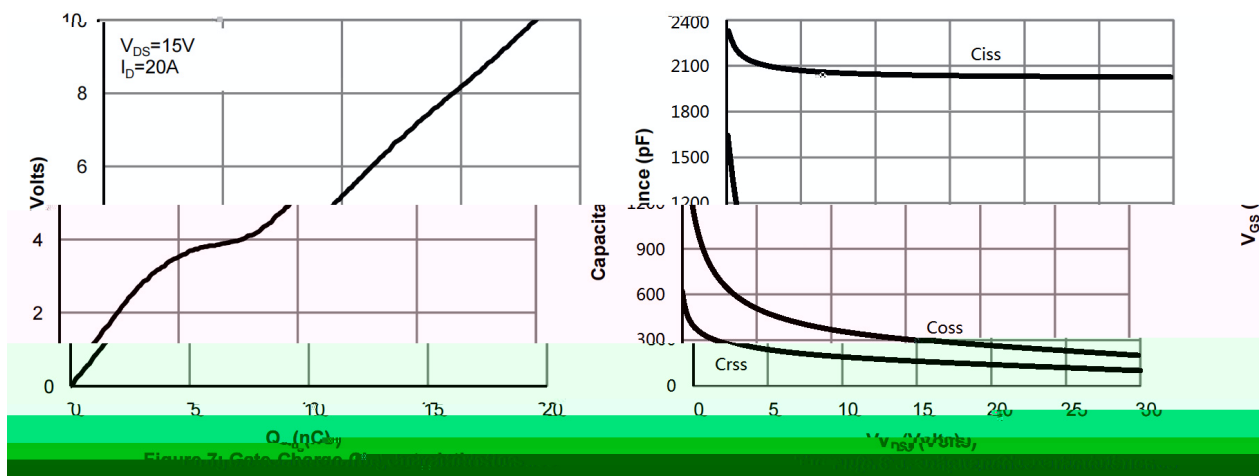
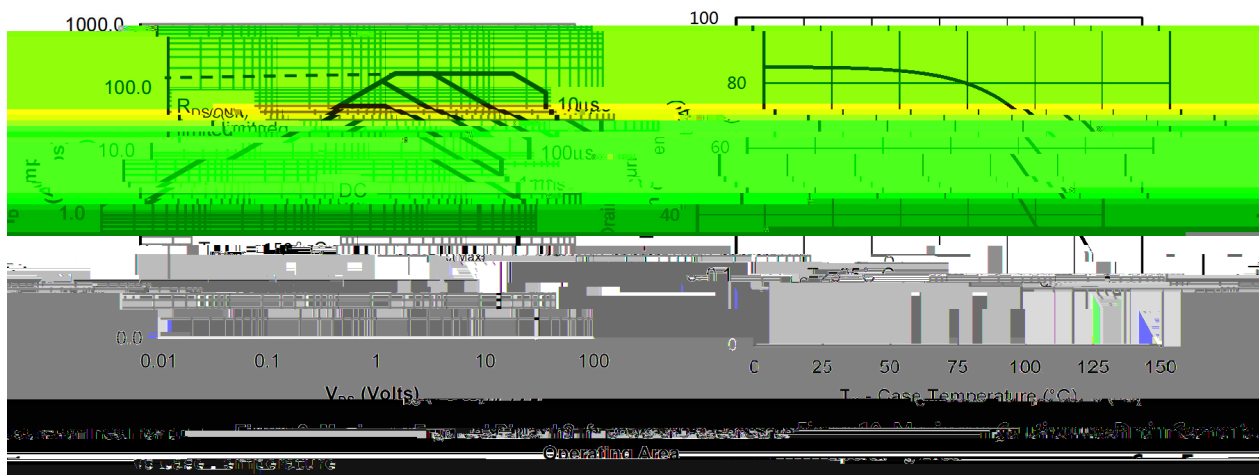
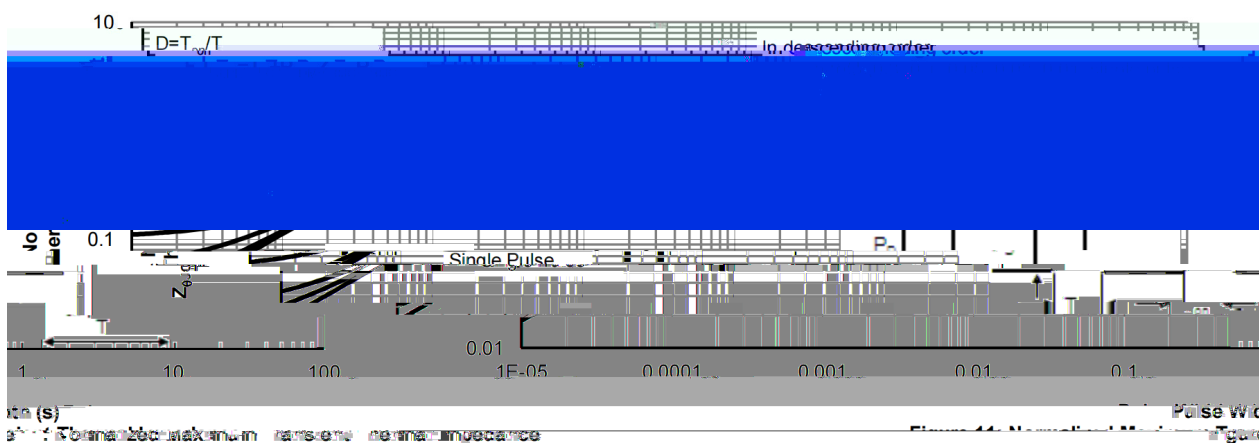


Figure 3: Body-Junction Characteristics

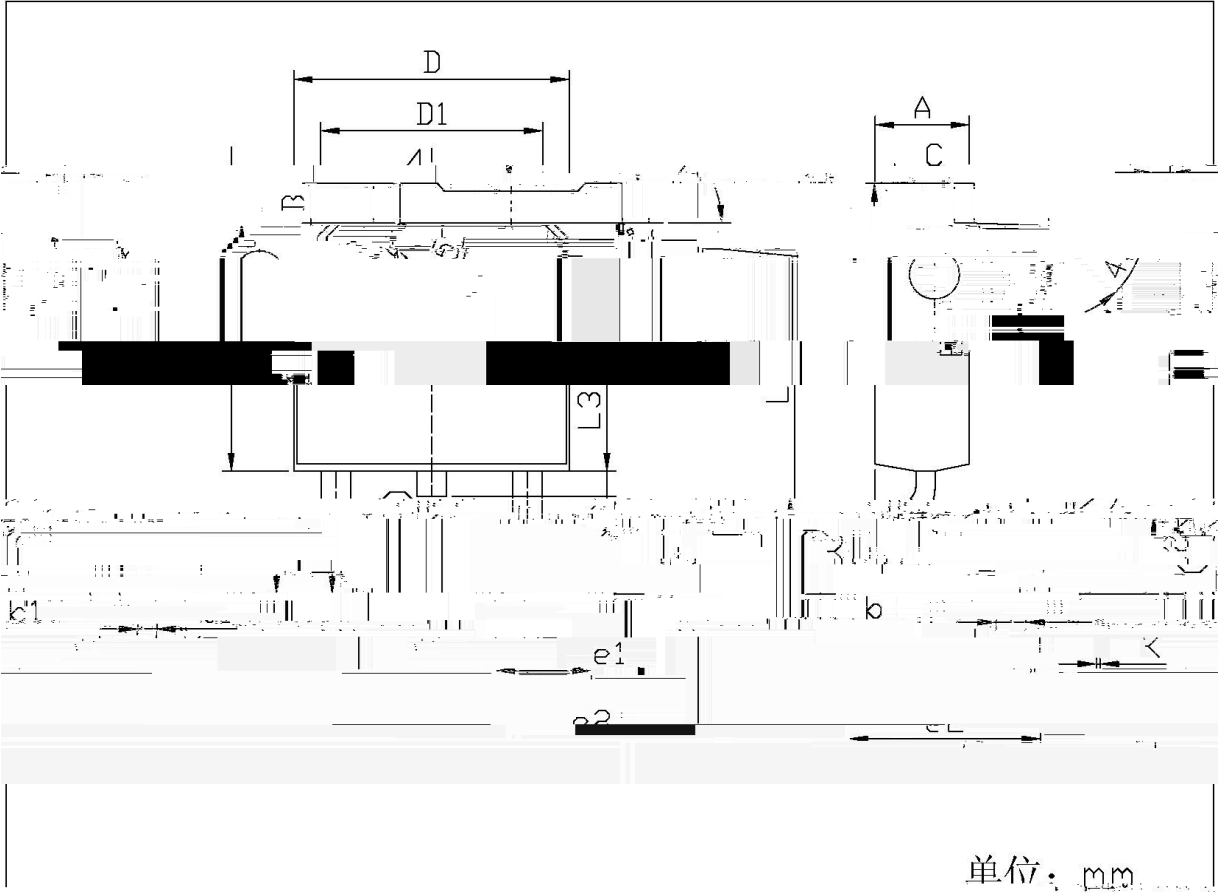
Figure 3: On-Resistance vs. Gate-Source Voltage

/ Electrical Characteristic Curve



/ Package Dimensions

TO-252#



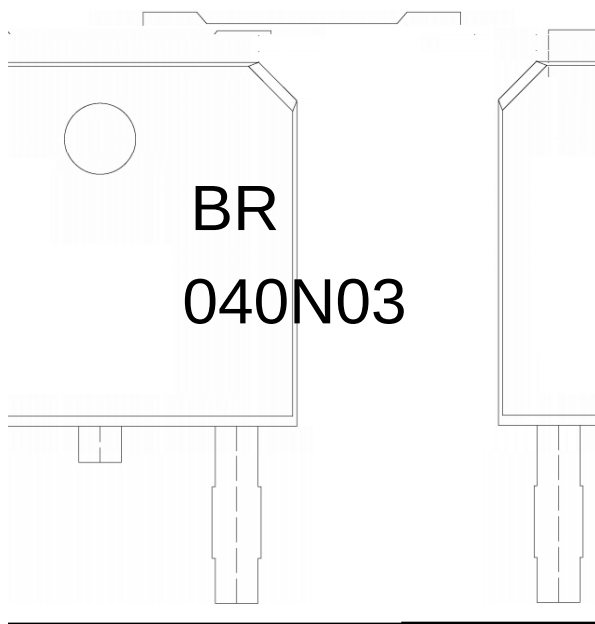
单位：mm

Dimensions, Millimeters		Symbol		Dimensions, Millimeters		Symbol	
Min	Max	Min	Max	Min	Max	Min	Max
2.34		B	0.95	1.25		e1	2.24
4.72		b1	0.45	0.55		b2	0.85
0.45		D	6.45	6.75		L	0.60
0.00		D1	5.10	5.50		K	

TO-252



/ Marking Instructions



BR

040N03

Note:

BR: Company Code

040N03: 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.

/ REEL

Package Type	Units	Dimension	(unit mm ³)
--------------	-------	-----------	-------------------------