

/ Descriptions

TO-252 N

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

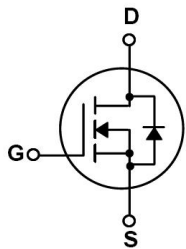
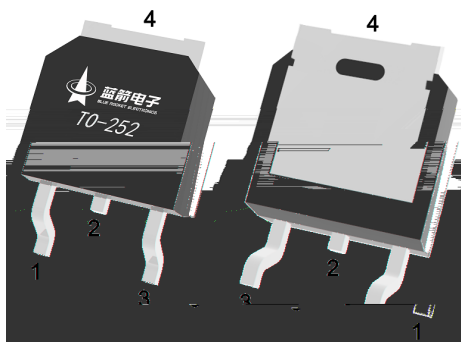
/ Features $R_{DS(on)}$ C_{rss} AEC-Q101

Low $R_{DS(on)}$, low gate charge, low C_{rss} , fast switching, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

/ Applications

DC/DC

Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit**/ Pinning**

PIN1 G

PIN 2 D

PIN 3 S

PIN 4 D

/ Marking

See Marking Instructions.

BRCS025N04DPQ

Rev.A Aug.-2024



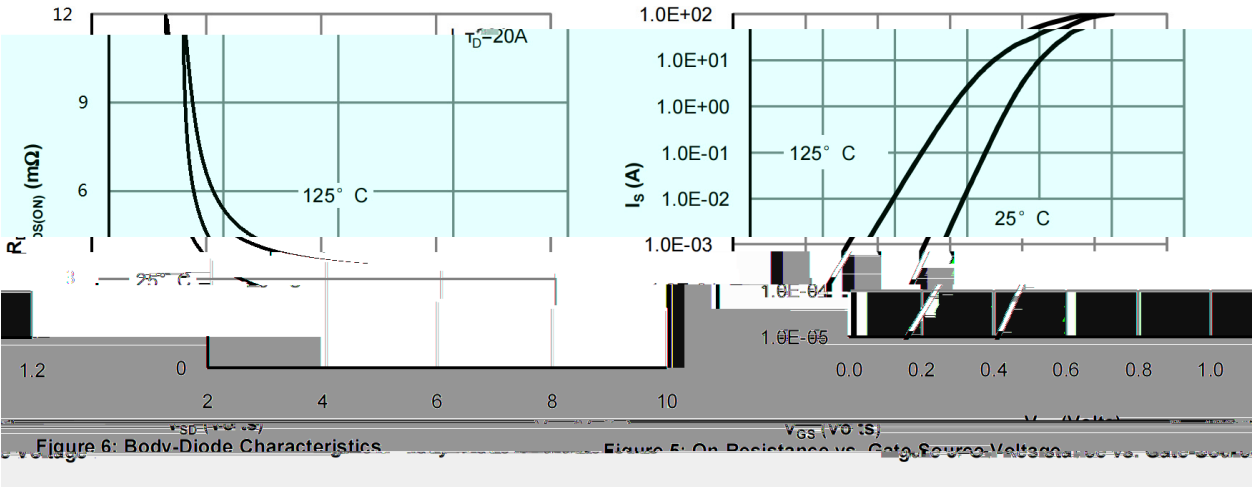
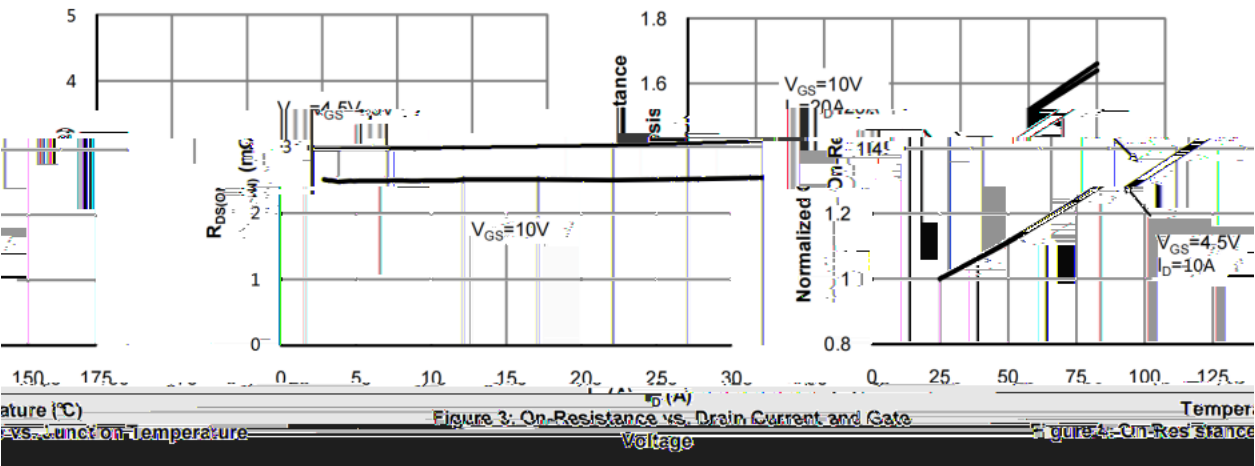
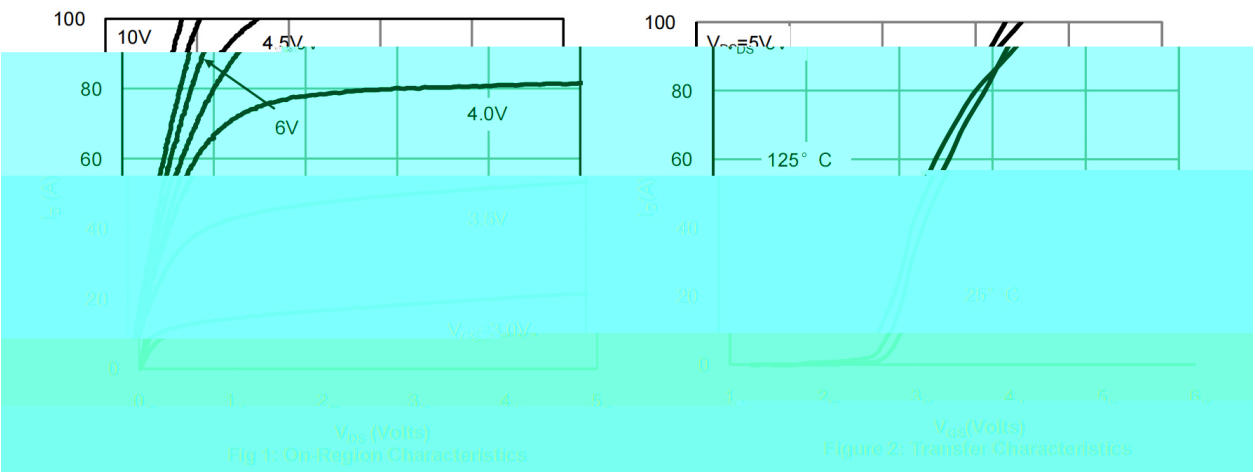
DATA SHEET

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	40	V
Drain Current	$I_D(T_c=25^\circ\text{C})$	164	A
Drain Current - Pulsed	I_{DM}		

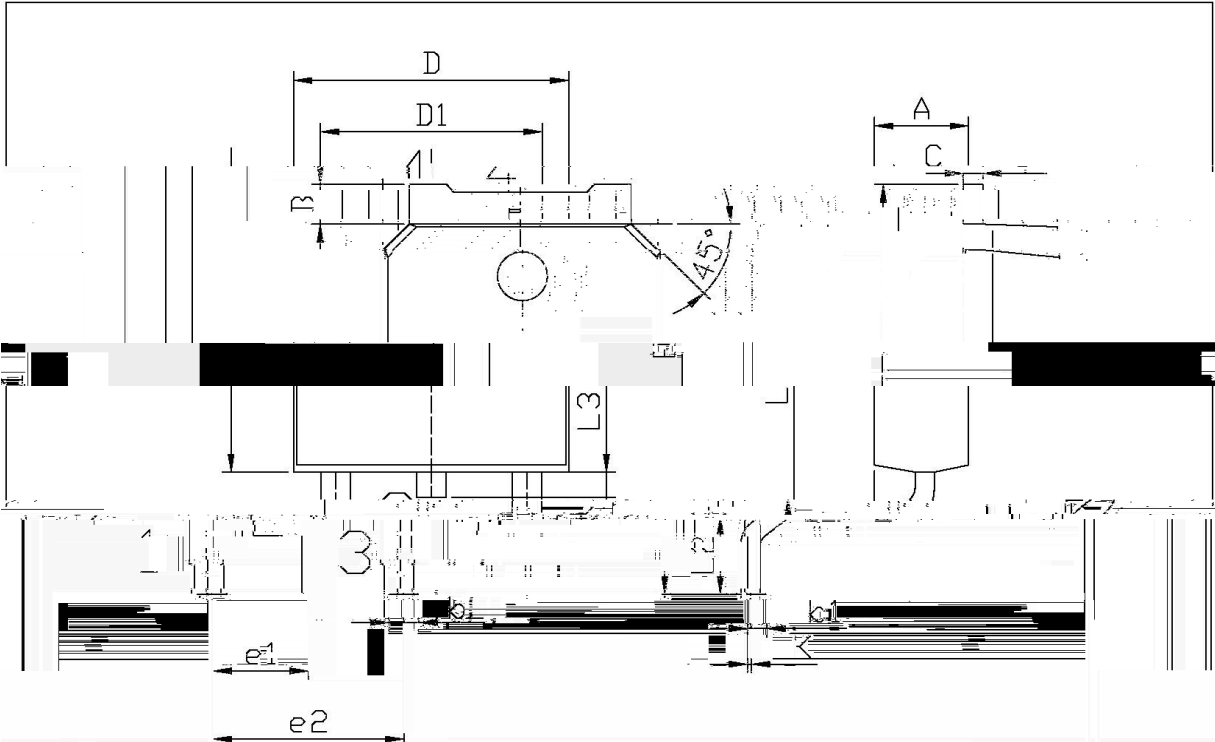
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=20V$ $R_L=1\Omega$ $R_{GEN}=3\Omega$		11		ns
Turn-On Rise Time	t_r			11		
Turn-Off Delay Time	$t_{d(off)}$			40		
Turn-Off Fall Time	t_f			10		

/ Electrical Characteristic Curve



/ Package Dimensions

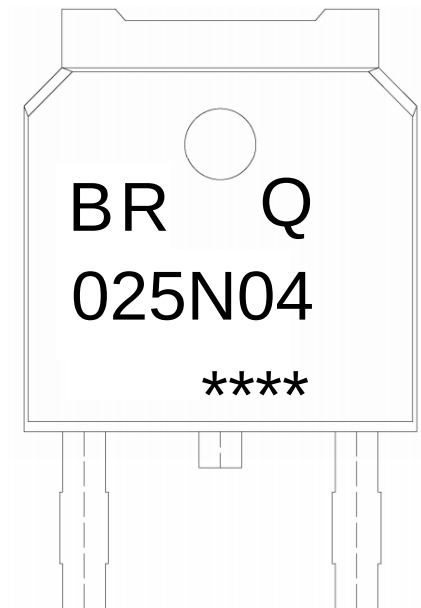


单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters		
	Min	Max		Min	Max	
6.25	A	2.20	2.40	E	5.95	
2.34	B	0.95	1.25	e1	2.24	
4.73	L1	9.85	10.35	b1	0.45	0.55
6.75	L3	0.60	0.90	D	6.45	
5.50	K	0.00	0.10	D1	5.10	

T0-252

/ Marking Instructions



BR

Q

025N04

Note:

BR: Company Code

Q: Automobile halogen-free product Code

025N04: Product Type Code

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

() / Temperature Profile for IR Reflow Soldering(Pb-Free)

Note:

- 1

150 200

60 120sec;

1.Preheating:150~200 , Time:60~120sec.
- 2

255±5

5±0.5sec;

2.Peak Temp.:255±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)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box