

BRCS025N04DPQ

Rev.A Aug.-2024

/ Descriptions

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

/ Features

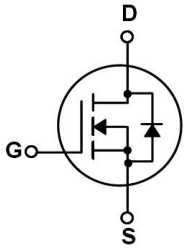
$R_{DS(on)}$ C_{rss} AEC-Q101
Low $R_{DS(on)}$, low gate charge, low C_{rss} , fast switching, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

/ Applications

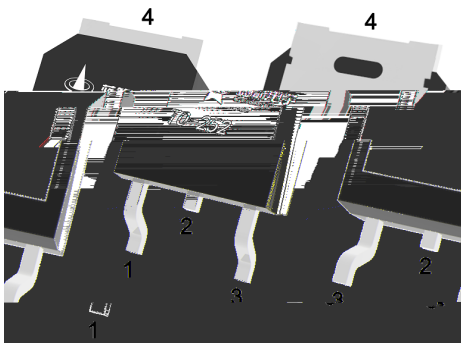
DC/DC

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.

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DATA SHEET

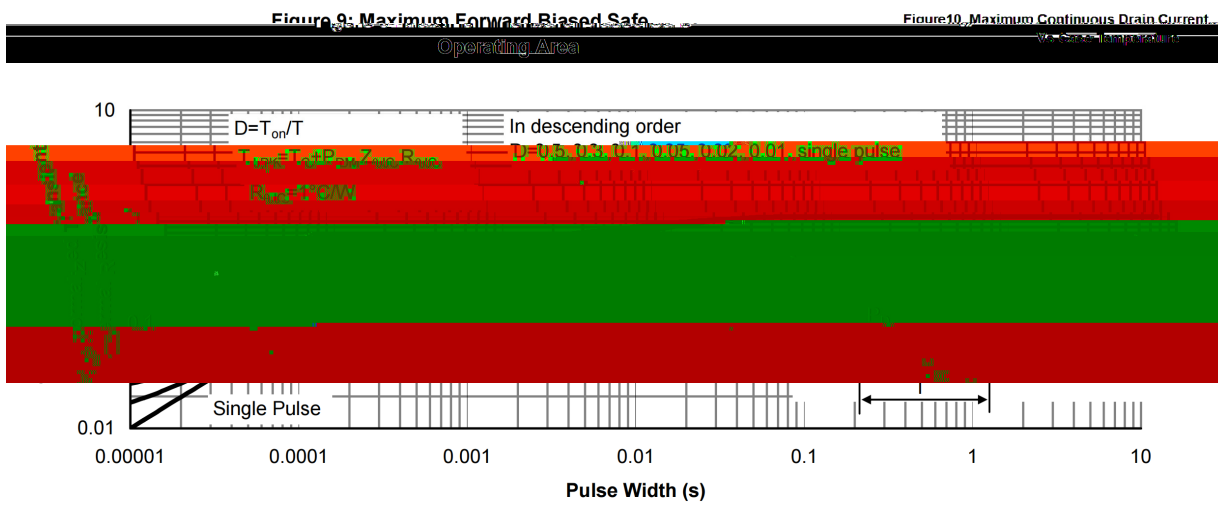
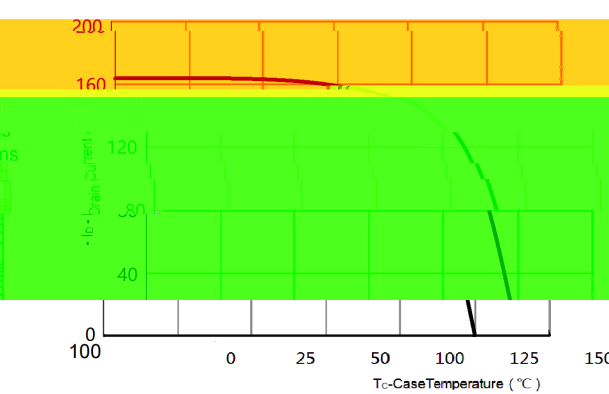
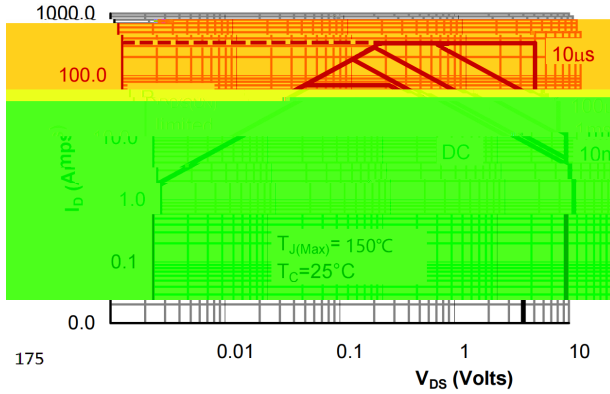
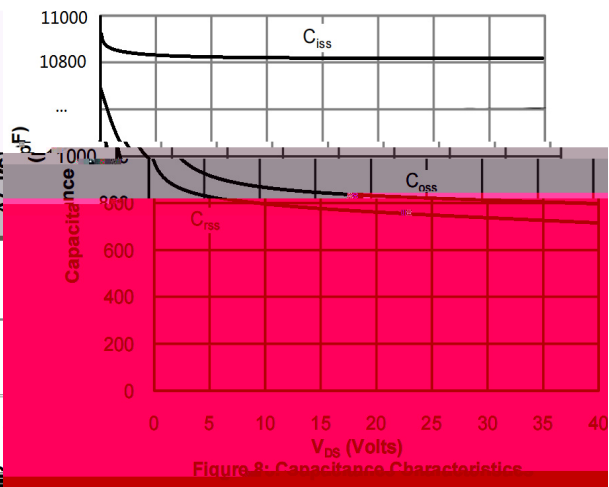
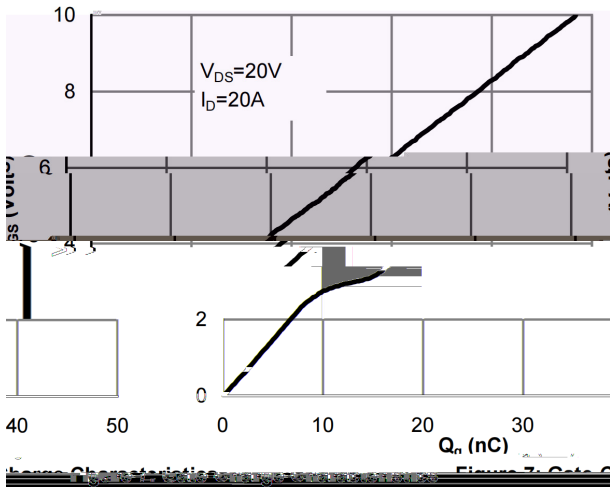
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	40	V
Drain Current	$I_D(T_C=25^\circ C)$	164	A
Drain Current - Pulsed	I_{DM}		

/ Electrical Characteristics(Ta=25)

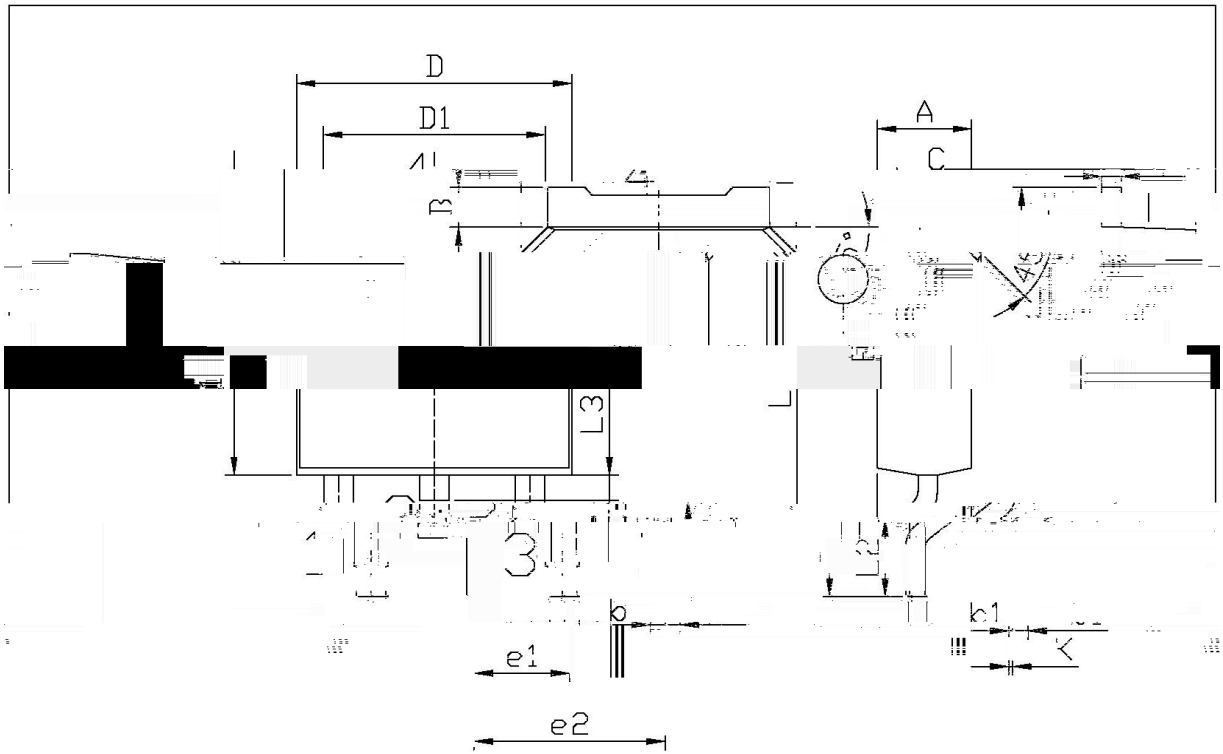
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=20V$ $R_L=1$ $R_{GEN}=3$		11		ns
Turn-On Rise Time	t_r			11		
Turn-Off Delay Time	$t_{d(off)}$			40		
Turn-Off Fall Time	t_f			10		

BRCS025N04DPQ
Rev.A Aug.-2024

/ Electrical Characteristic Curve



/ Package Dimensions

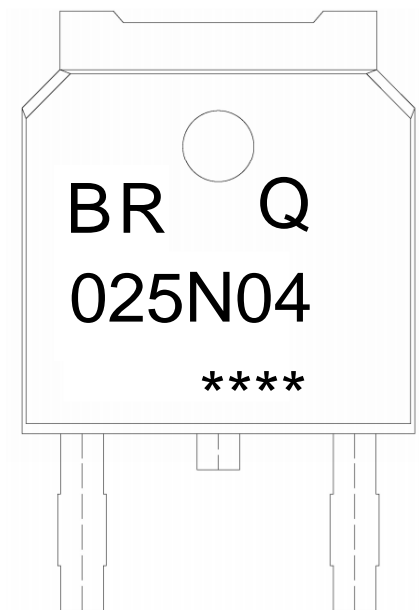


单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
0.95	1.25		A	2.20	2.40
			e1	2.24	2.34
0.70	0.90		L1	6.72	9.85
0.35	0.51	0.45			
	0.45	0.25		0.70	0.90
0.75	1.3	0.60	D1	6.45	6.85
0.50	0.60	0.90			

TO-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