

BRCs025N04DPQ

Rev.A Aug.-2024

/ Descriptions

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

/ Features

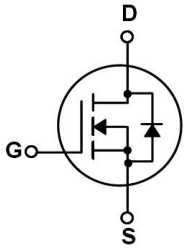
$R_{DS(on)}$ C_{rss} AEC-Q101
Low $R_{DS(on)}$, low gate charge, low C_{rss} , fast switching, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

/ Applications

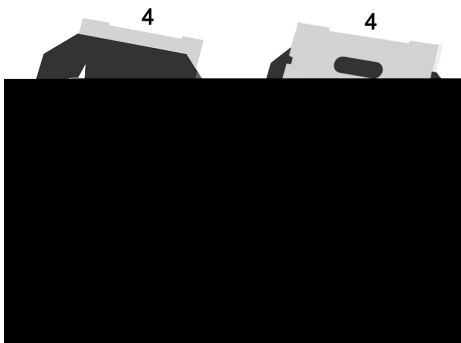
DC/DC

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



PIN 1 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}		

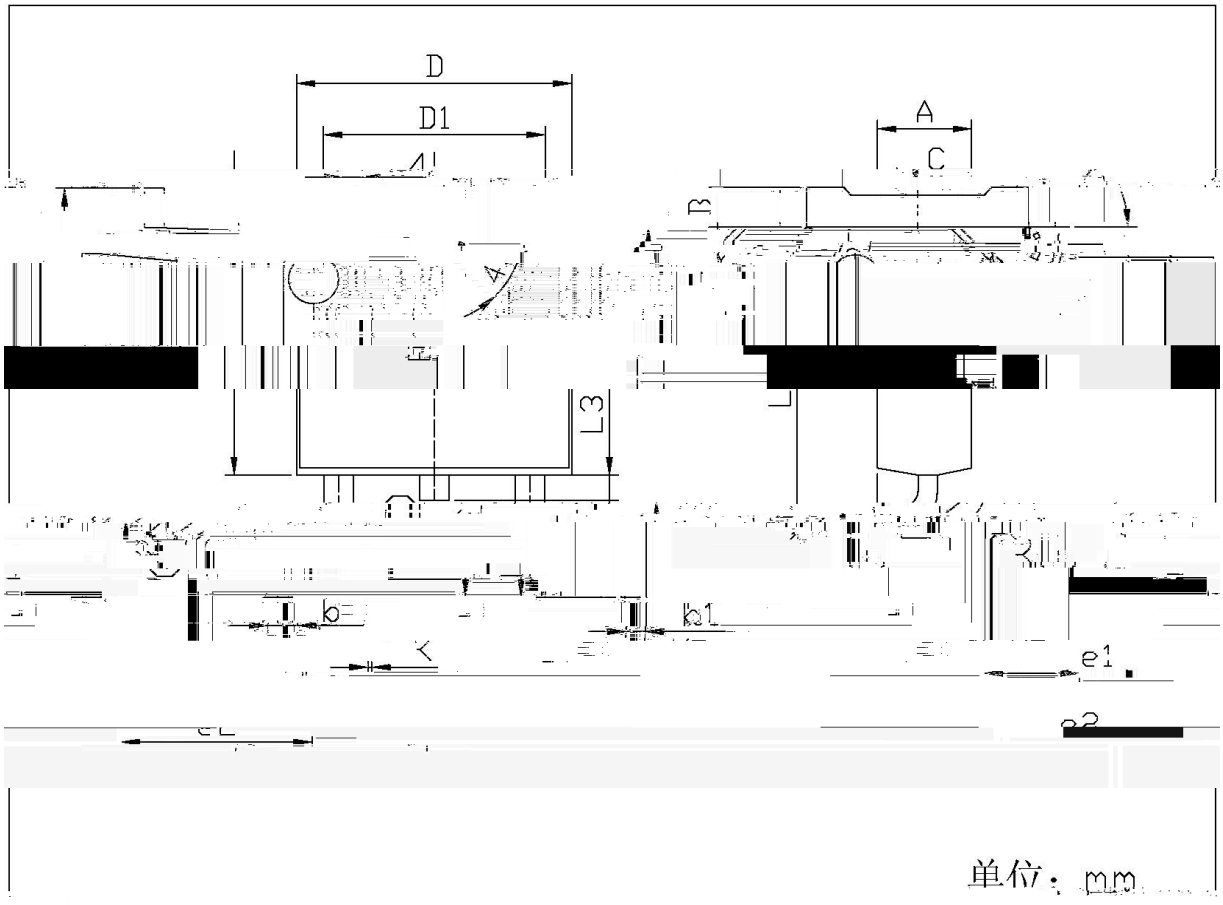
/ Electrical Characteristics(Ta=25)

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		

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/ Package Dimensions



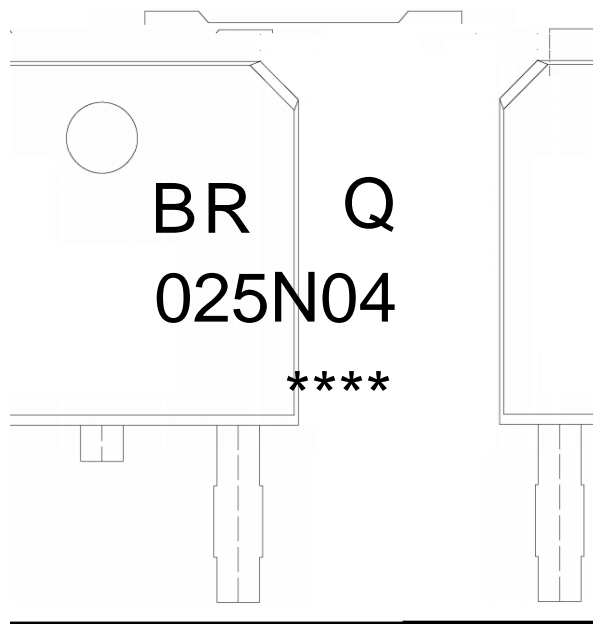
单位: mm

Dimensions		Millimeters		Dimensions		In Millimeters	
Symbol	Max	Min	Symbol	Max	Symbol	Max	Min
$2\phi 21$	2.34		B	0.95	e1	1.25	
$2\phi 24$	2.28		b	0.30	e2	0.60	
$\phi 0.85$	0.85	0.85	b1	0.45	K	0.50	
$\phi 1.0$	1.0	1.0	CL	1.50	L3	1.6	1.5
$\phi 1.0$	1.0	1.0	D	6.75	D1	5.10	5.50

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TO-25

/ 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.

076d, (16) AEDA1.2004DT 20REB-z0k-008ec1000Sec0017DT 00(17ff-00(4f)35)+23638282204248.8-225.8((P)5.7(TP)52(nieBB.22