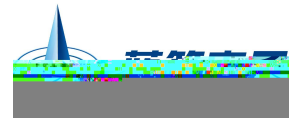


A	2019.12.24				
A	2021-12-24	6-7	TO-252#		
A	2022-7-27	all	Q AEC-Q101 Q 245±5°C 5± 0.5sec 255± 5°C 5±0.5sec		



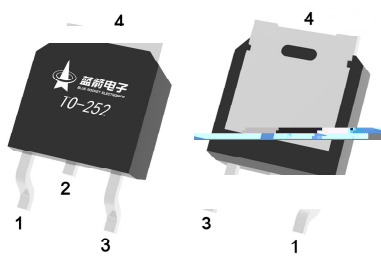
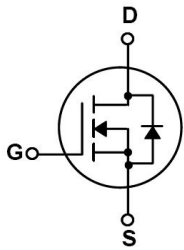
Rev.A Jul.-2022

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

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

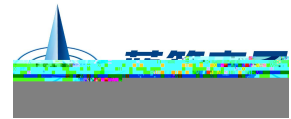
DC/DC

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.



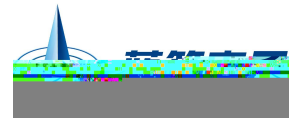
PIN 1 G PIN 2 D PIN 3 S PIN 4 D

See Marking Instructions.



Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	60	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	50	A
Drain Current - Pulsed	I_{DM}	200	A
Gate-Source Voltage	V_{GS}	± 20	V
Avalanche Current	I_{AS}	20	A
Single Pulsed Avalanche Energy	E_{AS}	170	mJ
Power Dissipation	$P_D(T_C=25^\circ\text{C})$	60	W
Storage Temperature Range	T_{stg}	-55~150	$^\circ\text{C}$
Thermal Resistance-Junction to Case	$R_{\theta JC}$	2.1	$^\circ\text{C/W}$
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	50	

Parameter Symbol Test Conditions



Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=30V$ $R_L=1.5\ \Omega$ $R_{GEN}=3\ \Omega$		8		ns
Turn-On Rise Time	t_r			5		
Turn-Off Delay Time	$t_{d(off)}$			30		
Turn-Off Fall Time	t_f			5.5		

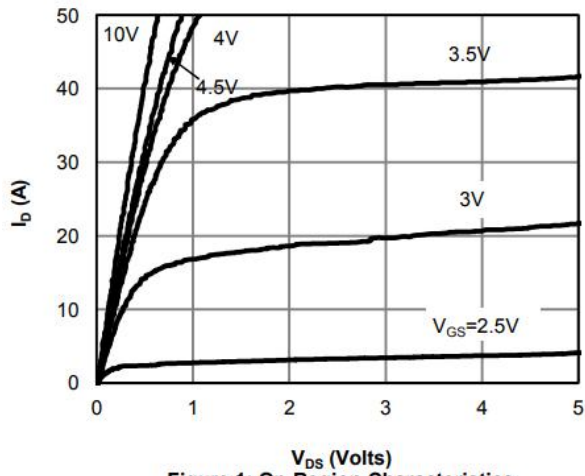
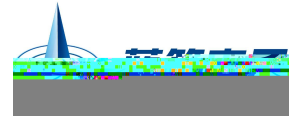


Figure 1: On-Region Characteristics

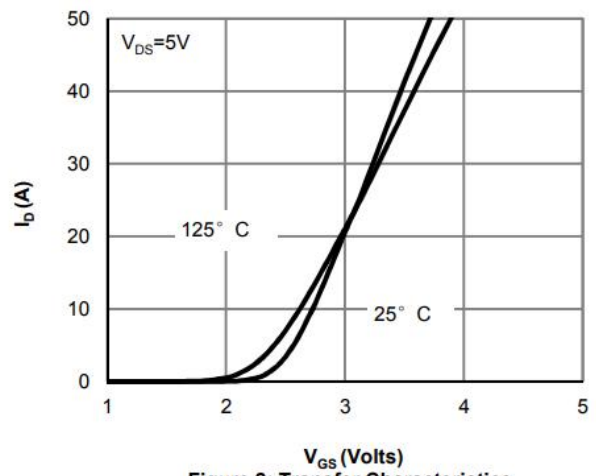
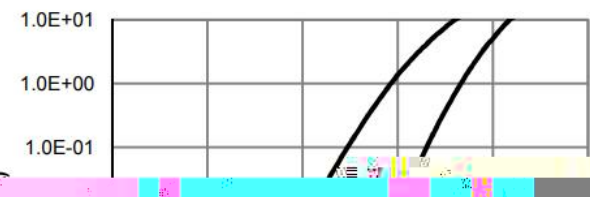
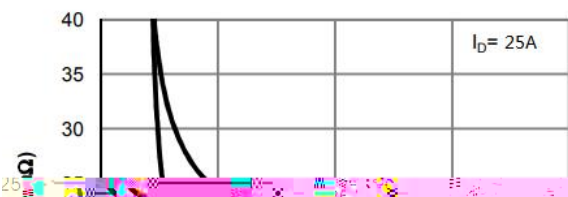
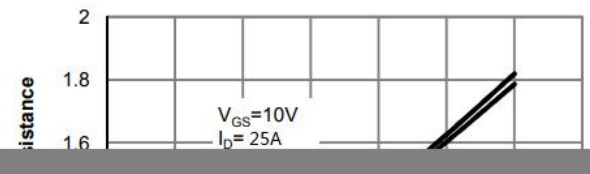
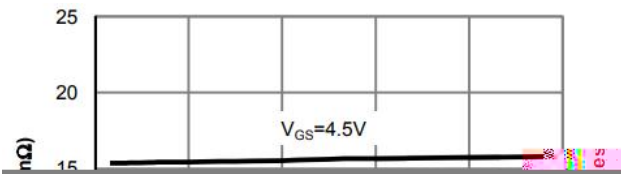
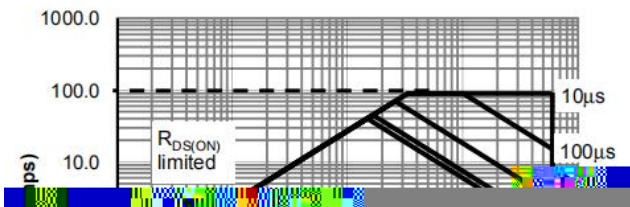
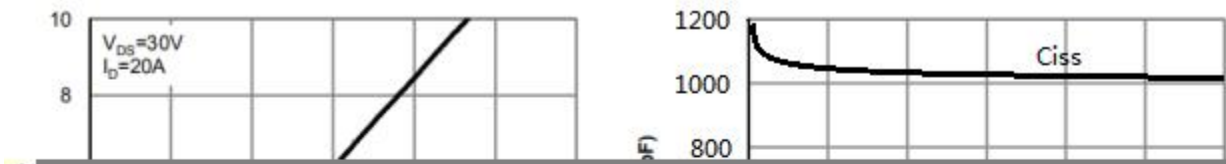
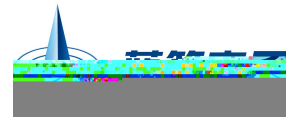
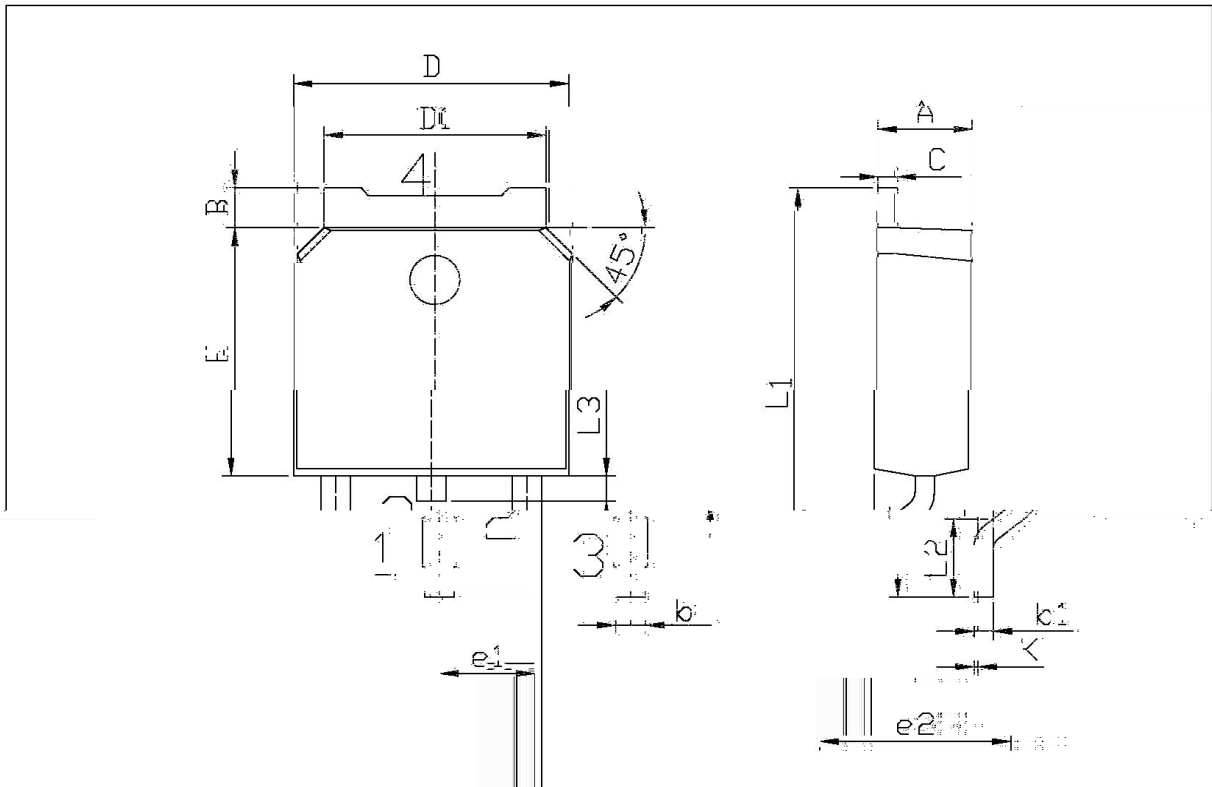
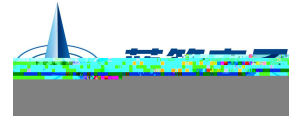


Figure 2: Transfer Characteristics





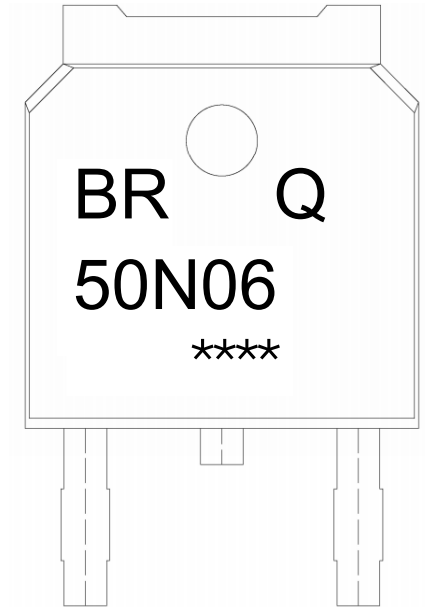
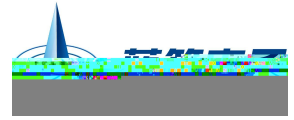


单位: mm

Dimensioni In Millimetri		Dimensioni In Millimetri	
Symbol	Max	Symbol	Max
2-20	2-40	5-25	5-25
0.95	1.25	2.24	2.34
0.35	0.45	0.55	1.1
2.00	0.60	0.45	10.55
0.60	0.90	6.45	6.75
0.60	0.60	5.10	5.50
			15.60

-252

T.0



说明：

BR： 为公司代码

Q： 为汽车无卤产品标识

50N06： 为型号代码

****： 为生产批号代码，随生产批号变化

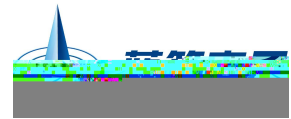
Note:

BR: Company Code

Q: Automobile halogen-free product Code

50N06: 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°C, Time:60~120sec.
- 2 255±5 5±0.5sec; 2.Peak Temp.:255±5°C, Duration:5±0.5sec.
- 3 2 10°C/sec. 3. Cooling Speed: 2~10°C/sec.

260±5°C 10±1 sec. Temp.:260±5°C Time:10±1 sec

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
TO-252	2,500	2	5,000					