

BRDTC114YKAQ

Rev.A Nov.-2024



DATA SHEET

SOT-23 NPN

Silicon NPN Digital transistor in a SOT-23 Plastic Package.

AEC-Q101

With built-in bias resistors, simplify circuit design, reduce a quantity of parts and manufacturing process, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

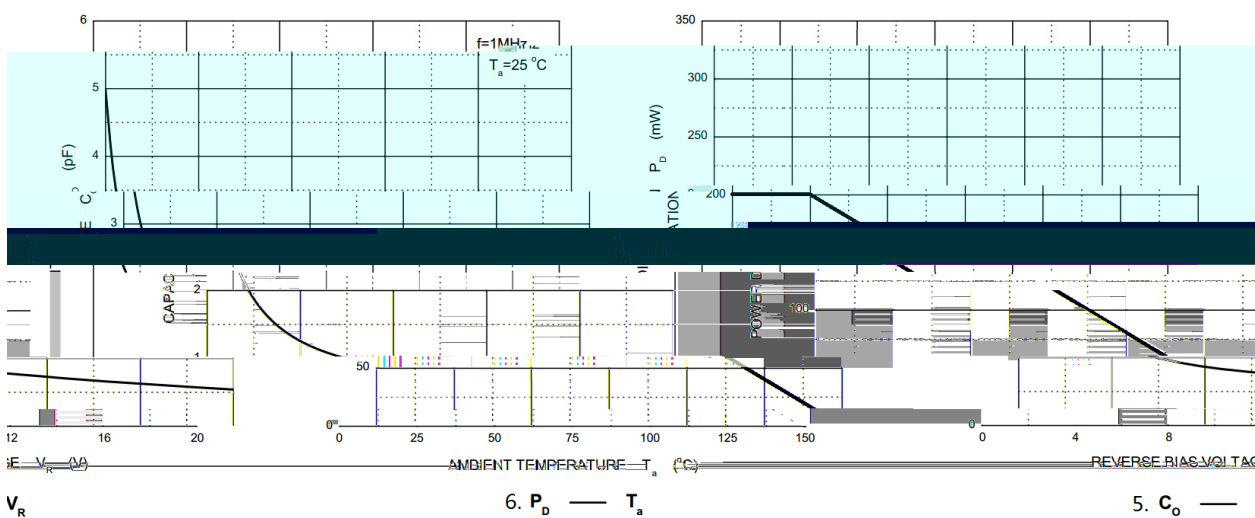
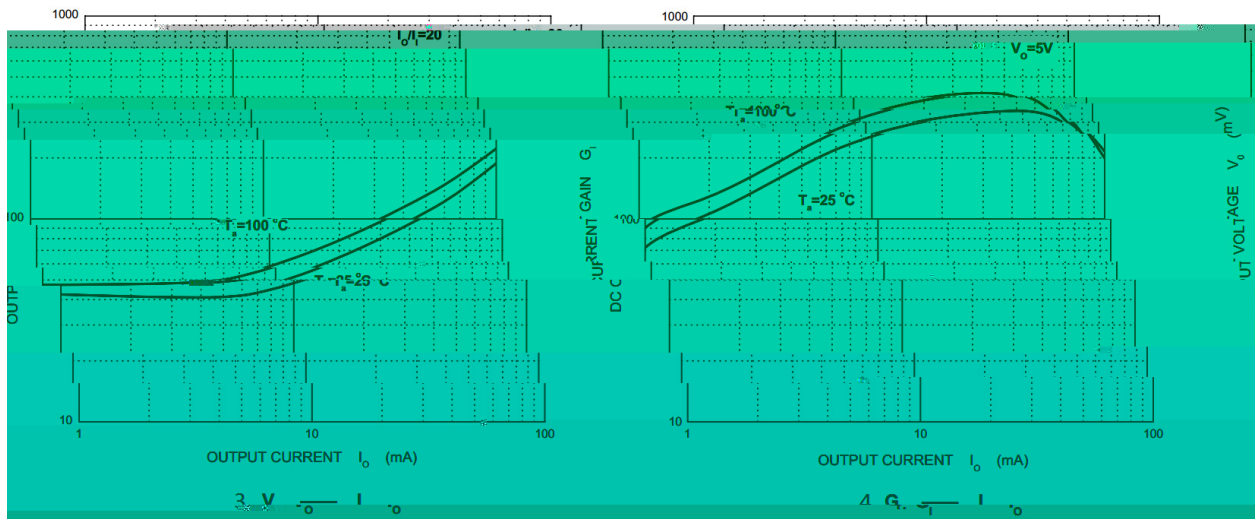
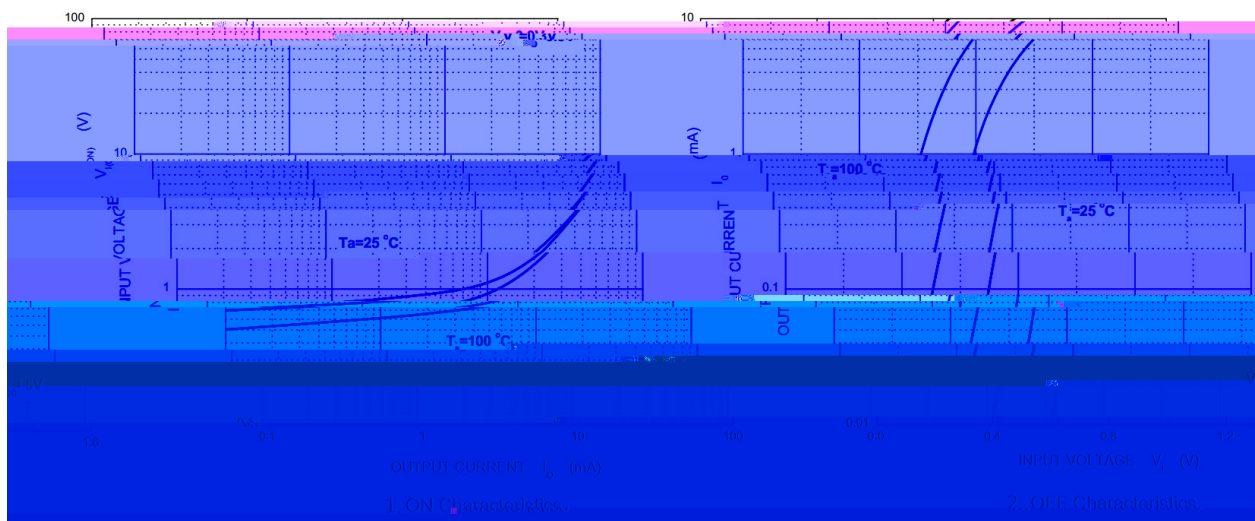
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Supply Voltage	V _{CC}	50	V
Input Voltage	V _{IN}	-6~40	V
Output Current	I _O	70	mA
Peak Collector Current	I _{CM}	100	mA
Power Dissipation	P _D	200	mW
Junction Temperature	T _J	150	
Storage Temperature Range	T _{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Voltage(OFF)	V _{I(off)}	V _{CC} =5.0V I _O =100 A	0.3			V
Input Voltage(ON)	V _{I(on)}	V _O =0.3V I _O =1mA			1.4	V
Output Voltage	V _{O(on)}	I _O =5mA I _I =0.25mA		0.1	0.3	V
Input Current	I _I	V _I =5.0V			0.88	mA
Output Cut-off Current	I _{O(off)}	V _{CC} =50V V _I =0V			0.5	A
DC Current Gain	G _I	V _O =5.0V I _O =5.0mA	68			
Transition Frequency	f _T	V _{CE} =10V I _C =5.0mA f=100MHz		250		MHz
Resistance1	R ₁		7	10	13	K
Resistance Ratio	R ₂ /R ₁		3.7	4.7	5.7	

/ Electrical Characteristic Curve





/ Marking Instructions



Q

64

Note:

Q: Automobile halogen-free product Code

64 Product Type Code

() /

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.

S