

BRDTA144EUAQ

Rev.A Mar.-2023



DATA SHEET

SOT-323

PNP

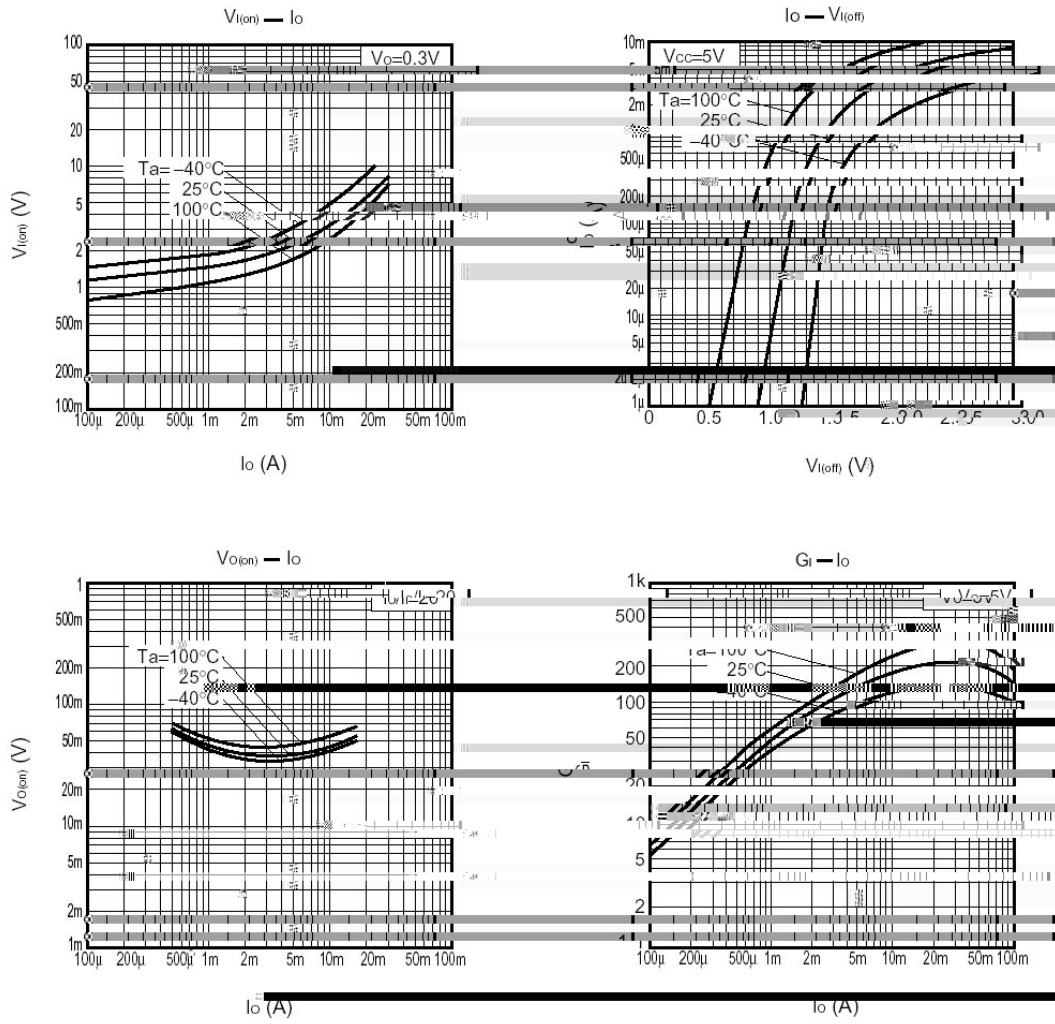
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Output Voltage	V_{CC}	-50	V
Input Voltage	V_{IN}	-40	V
		10	V
Output Current	I_C	-100	mA
	I_O	-30	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

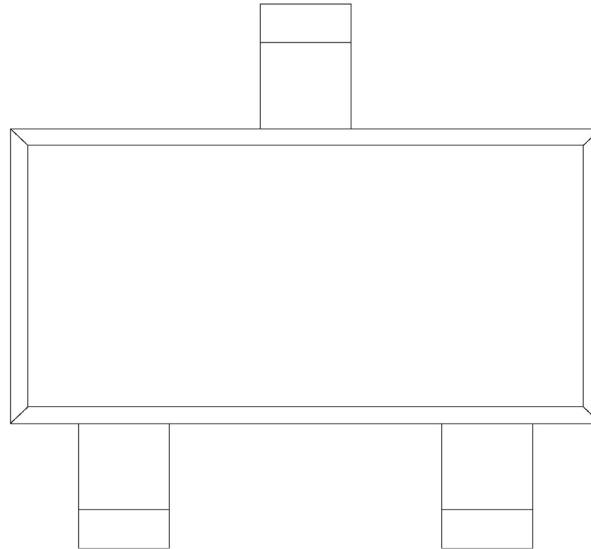
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Voltage	$V_{I(off)}$	$V_{CC}=-5.0V$ $I_O=-100\text{ A}$			-0.5	V
	$V_{I(on)}$	$V_O=-0.3V$ $I_O=-2.0mA$	-3.0			V
Output Voltage	$V_{O(on)}$	$I_O=-10mA$ $I_I=-0.5mA$		-0.1	-0.3	V
Input Current	I_I	$V_I=-5.0V$			-0.18	mA
Output Cut-off Current	$I_{O(off)}$	$V_{CC}=-50V$ $V_I=0V$			-0.5	A
DC Current Gain	G_I	$V_O=-5.0V$ $I_O=-5.0mA$	68			
Transition Frequency	f_T	$V_{CE}=-10V$ $I_E=5.0mA$ $f=100MHz$		250		MHz
Resistance1	R_1		32.9	47	61.1	K
Resistance Ratio	R_2/R_1		0.8	1.0	1.2	

/ Electrical Characteristic Curve





/ Marking Instructions



Q

16

Note:

Q: Automobile halogen-free product Code

16


() / 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)
--------------	-------	-----------	-------------------------