

**BRDTA144EUAQ**  
Rev.A Mar.-2023



SOT-323

PNP

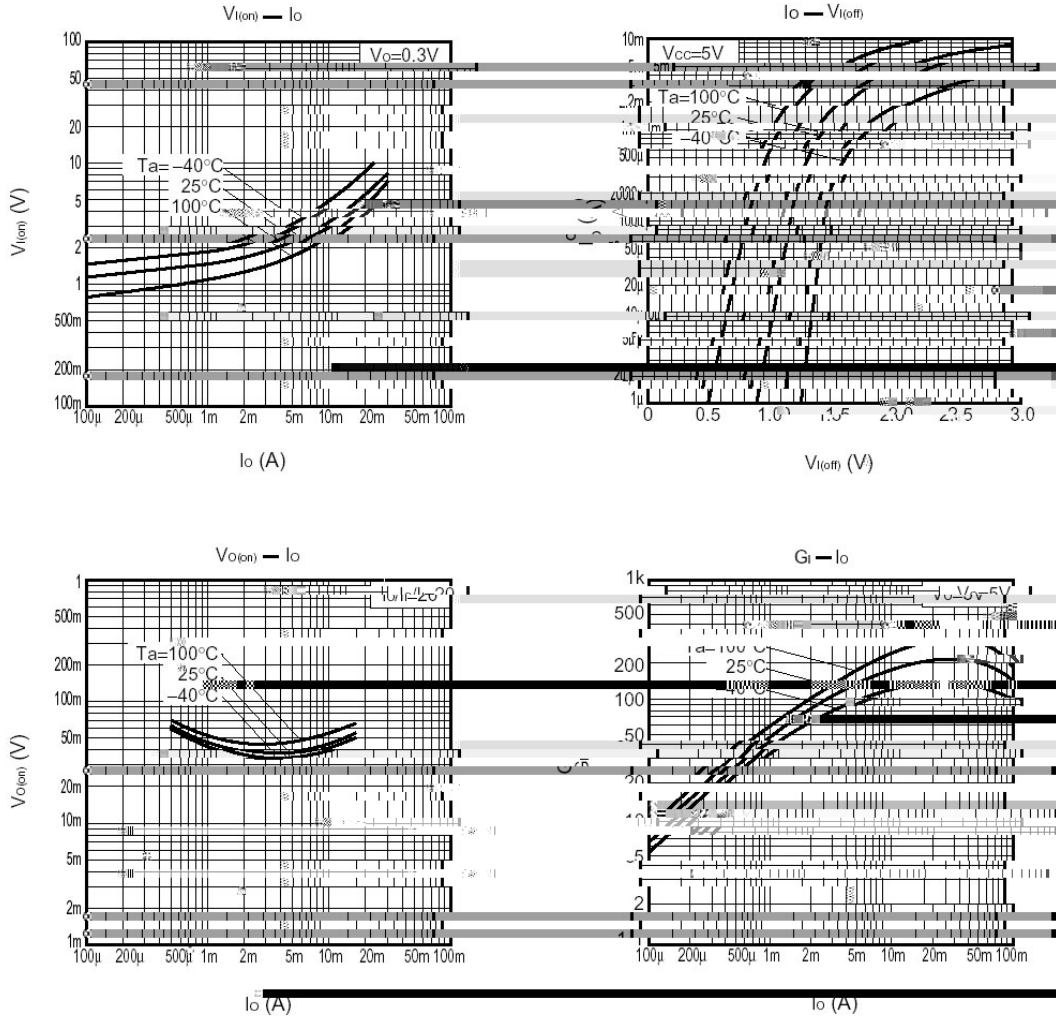
/ Absolute Maximum Ratings( $T_a=25$  )

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( $T_a=25$  )

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Voltage	$V_{I(off)}$	$V_{CC}=-5.0V$ $I_O=-100$ 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

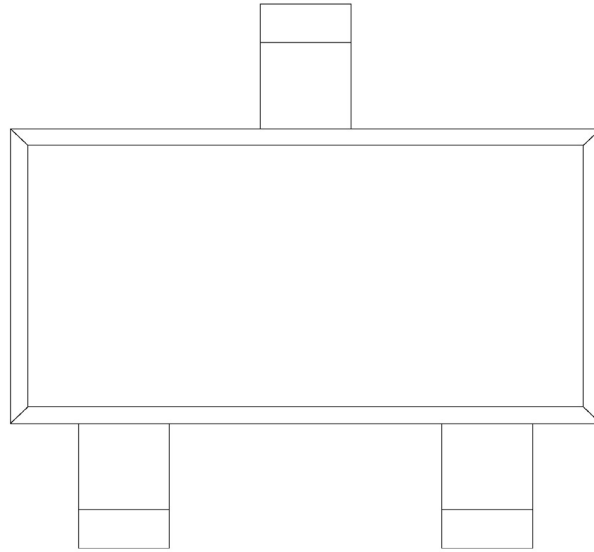


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**DATA SHEET**

/ Marking Instructions



Q

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Note:

Q: Automobile halogen-free product Code

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**( ) / 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 <sup>3</sup> )
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