

/ Descriptions

SOT-323 PNP
Silicon PNP Digital Transistor in a SOT-323 Plastic Package.

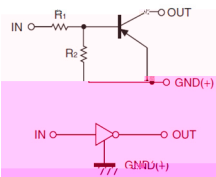
/ Features

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.

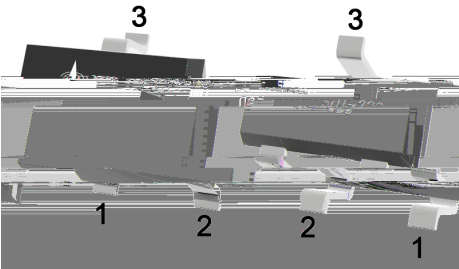
/ Applications

Switching applications, interface circuit and driver circuit applications, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN1 IN PIN 2 GND PIN 3 OUT

/ hFE Classifications & Marking

Marking	Q14
---------	-----

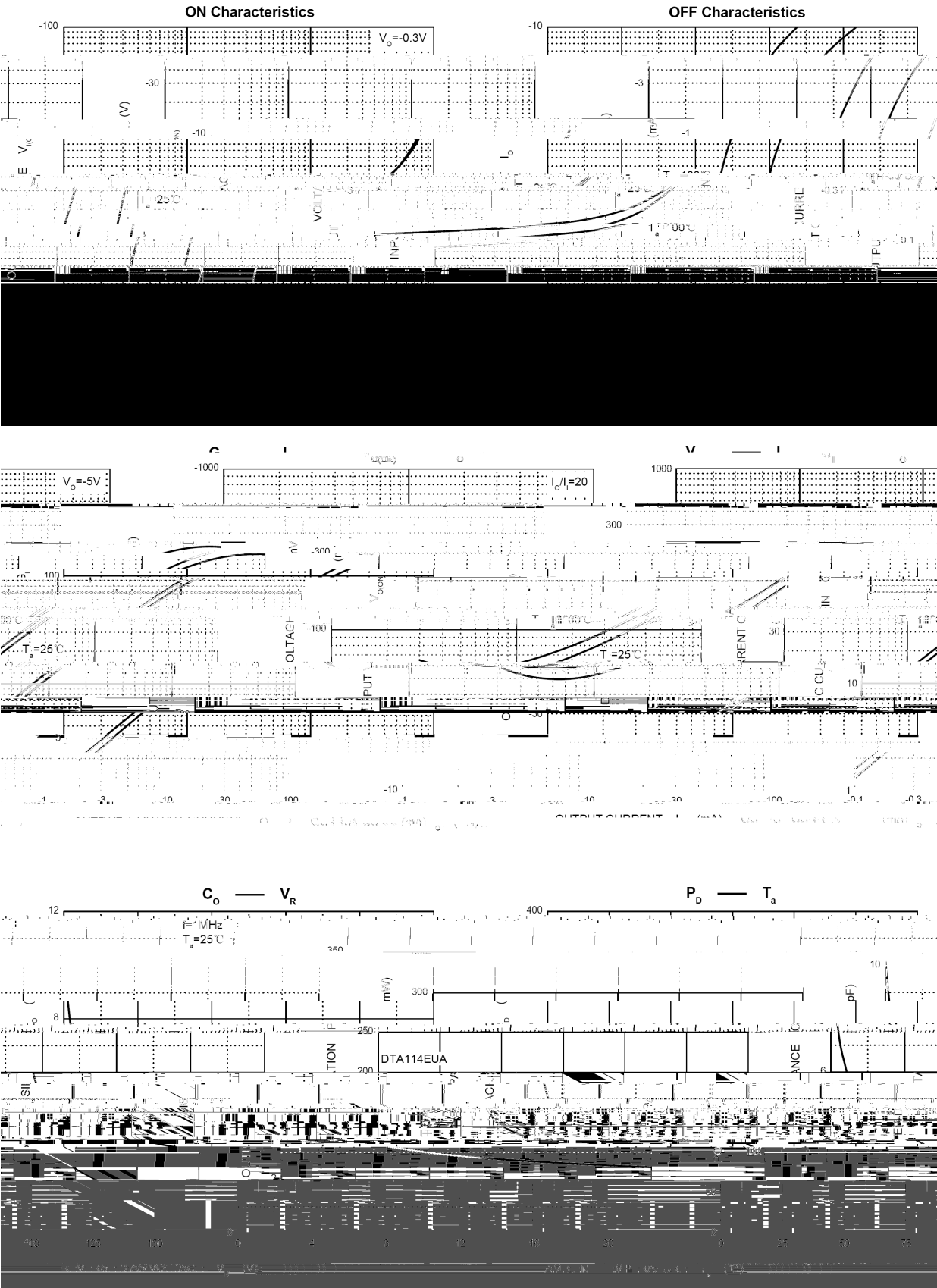
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Output Voltage	V _{CC}	-50	V
Input Voltage	V _{IN}	10	V
		-40	V
Output Current	I _O	-50	mA
Peak Collector Current	I _{CM}	-100	mA
Power Dissipation	P _D	200	mW
Junction Temperature	T _j	-55 150	
Storage Temperature Range	T _{stg}	-55 150	

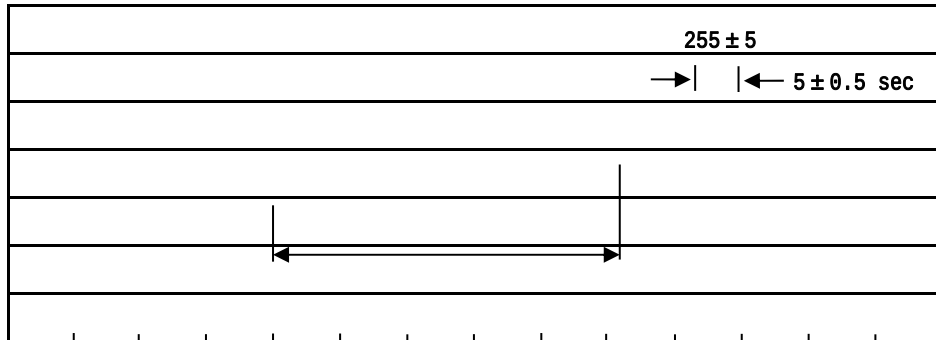
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Voltage	V _{I(off)}	V _{CC} =-5.0V I _O =-100μA	-0.5			V
	V _{I(on)}	V _O =-0.3V I _O =-10mA			-3.0	V
Output Voltage	V _{O(on)}	I _O =-10 mA I _I =-0.5mA			-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	μA
DC Current Gain	G _I	V _O =-5.0V I _O =-5.0mA	30			
Resistance1	R ₁		7	10	13	KΩ
Resistance Ratio	R ₂ /R ₁		0.8	1.0	1.2	
Transition Frequency	f _T	V _O =-10V I _O =-5.0mA f=100MHz		250		MHz

/ Electrical Characteristic Curve



() / **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)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-323	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ **Notices**