



DTA114W

Preliminary

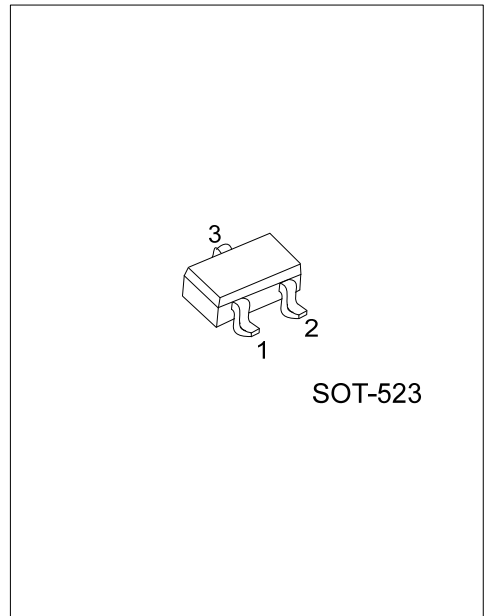
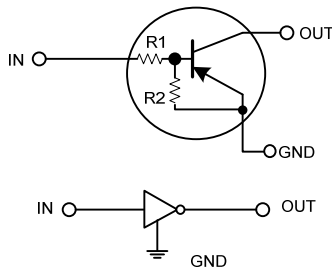
PNP SILICON TRANSISTOR

DIGITAL TRANSISTORS (BUILT-IN BIAS RESISTORS)

FEATURES

- * Built-in bias resistors that implies easy ON/OFF applications.
- * The bias resistors are thin-film resistors with complete isolation to allow positive input.

EQUIVALENT CIRCUIT



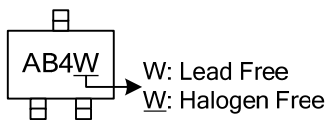
ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
DTA114WL-AN3-R	DTA114WG-AN3-R	SOT-523	I	G	O	Tape Reel

Note: Pin Assignment: I: IN G: GND O: OUT

<p>DTA114WG-AN3-R</p> <ul style="list-style-type: none"> (1) Packing Type (2) Package Type (3) Green Package 	<ul style="list-style-type: none"> (1) R: Tape Reel (2) AN3: SOT-523 (3) G: Halogen Free and Lead Free, L: Lead Free
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MARKING



■ ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V_{CC}	-50	V
Input Voltage	V_{IN}	-30 ~ +10	V
Output Current	I_{OUT}	-100	mA
	$I_{C(MAX)}$	-100	
Power Dissipation	P_D	150	mW
Junction Temperature	T_J	+150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL SPECIFICATIONS ($T_A = 25^\circ\text{C}$)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	$V_{IN(OFF)}$	$V_{CC} = -5V, I_{OUT} = -100\mu\text{A}$			-0.8	V
	$V_{IN(ON)}$	$V_{OUT} = -0.3V, I_{OUT} = -2\text{mA}$	-3			
Output Voltage	$V_{OUT(ON)}$	$I_{OUT}/I_{IN} = 10\text{mA}/-0.5\text{mA}$		-0.1	-0.3	V
Input Current	I_{IN}	$V_{IN} = -5V$			-0.88	mA
Output Current	$I_{OUT(OFF)}$	$V_{CC} = -50V, V_{IN} = 0V$			-0.5	μA
DC Current Gain	G_{IN}	$V_{OUT} = -5V, I_{OUT} = -10\text{mA}$	24			
Input Resistance	R_1		7	10	13	K Ω
Resistance Ratio	R_2/R_1		0.37	0.47	0.57	
Transition Frequency	f_T	$V_{CE} = -10V, I_E = 5\text{mA}, f = 100\text{MHz}$ (Note)		250		MHz

Note: Transition frequency of the device

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