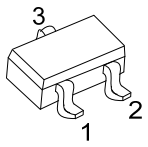
DTA114W

Preliminary | ***PNP SILICON TRANSISTOR***

DIGITAL TRANSISTORS (BUILT- IN BIAS RESISTORS)

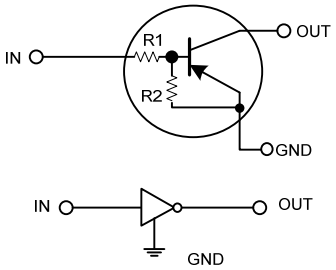


SOT-523

■ 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



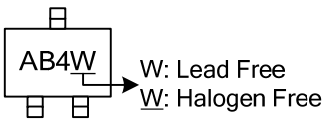
■ ORDERING INFORMATION

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

DTA114WG-AN3-R (1)Packing Type (2)Package Type (3)Green Package	(1) R: Tape Reel (2) AN3: SOT-523 (3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



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■ ABSOLUTE MAXIMUM RATINGS (T_A =25°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	°C
Storage Temperature	T_{STG}	-55 ~ +150	°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°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	$V_{IN(OFF)}$	V_{CC} =-5V, I_{OUT} =-100μA			-0.8	V
	$V_{IN(ON)}$	V_{OUT} =-0.3V, I_{OUT} =-2mA	-3			
Output Voltage	$V_{OUT(ON)}$	I_{OUT}/I_{IN} =10mA/-0.5mA		-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} =-10mA	24			
Input Resistance	R_1		7	10	13	KΩ
Resistance Ratio	R_2/R_1		0.37	0.47	0.57	
Transition Frequency	f_T	V_{CE} =-10V, I_E =5mA, f=100MHz (Note)		250		MHz

Note: Transition frequency of the device

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