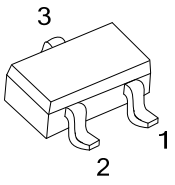
DTA123Y

PNP SILICON TRANSISTOR

DIGITAL TRANSISTORS (BUILT- IN BIAS RESISTORS)

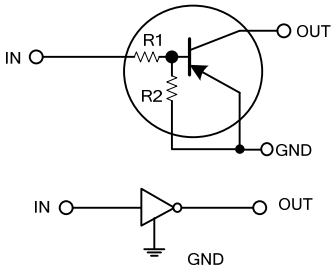


SOT-23
(JEDEC TO-236)

■ 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

Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
DTA123YG-AE3-R	SOT-23	G	I	O	Tape Reel

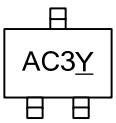
Note: Pin assignment: G: GND I: IN O: OUT

DTA123YG-AE3-R

(1)Packing Type
(2)Package Type
(3)Green Package

(1) R: Tape Reel
(2) AE3: SOT-23
(3) G: Halogen Free and Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V_{CC}	-50	V
Input Voltage	V_{IN}	-12 ~ +10	V
Output Current	I_{OUT}	-100	mA
	$I_{C(MAX)}$	-100	
Power Dissipation	P_D	200	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, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	$V_{IN(OFF)}$	V_{CC} =-5V, I_{OUT} =-100μA			-0.3	V
	$V_{IN(ON)}$	V_{OUT} =-0.3V, I_{OUT} =-20mA	-3			
Output Voltage	$V_{OUT(ON)}$	I_{OUT}/I_{IN} =-10mA/-0.5mA			-0.3	V
Input Current	I_{IN}	V_{IN}=-5V			-3.8	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	33			
Input Resistance	R_1		1.54	2.2	2.86	KΩ
Resistance Ratio	R_2/R_1		3.6	4.5	5.5	
Transition Frequency	f_T	V_{CE} =-10V, I_E =−5mA, f=100MHz (Note)		250		MHz

Note: Transition frequency of the device