



# DTA124T

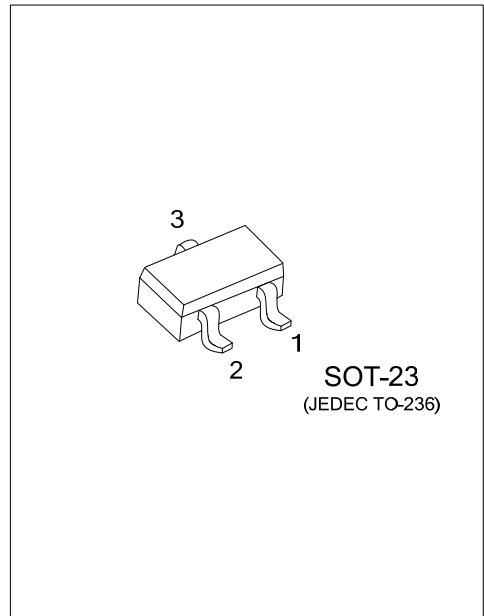
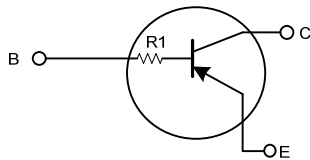
## PNP SILICON TRANSISTOR

### 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



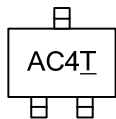
#### ■ ORDERING INFORMATION

Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
DTA124TG-AE3-R	SOT-23	E	B	C	Tape Reel

Note: Pin Assignment: E: Emitter B: Base C: Collector

<p>DTA124TG-AE3-R</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>	<p>(1) R: Tape Reel</p> <p>(2) AE3: SOT-23</p> <p>(3) G: Halogen Free and Lead Free</p>
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#### ■ MARKING



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

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	$V_{CBO}$	-50	V
Collector-Emitter Voltage	$V_{CEO}$	-50	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-100	mA
Collector Power Dissipation	$P_C$	200	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 CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C = -50\mu\text{A}$	-50			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C = -1\text{mA}$	-50			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E = -50\mu\text{A}$	-5			V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = -50\text{V}$			-0.5	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = -4\text{V}$			-0.5	$\mu\text{A}$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = -5\text{mA}, I_B = -0.5\text{mA}$			-0.3	V
DC Current Transfer Ratio	$h_{FE}$	$V_{CE} = -5\text{V}, I_C = -1\text{mA}$	100	250	600	
Transition Frequency (Note)	$f_T$	$V_{CE} = -10\text{V}, I_E = 5\text{mA}, f = 100\text{MHz}$		250		MHz
Input Resistance	R1		15.4	22	28.6	k $\Omega$

Note: Transition frequency of the device.

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