



## DTA144T

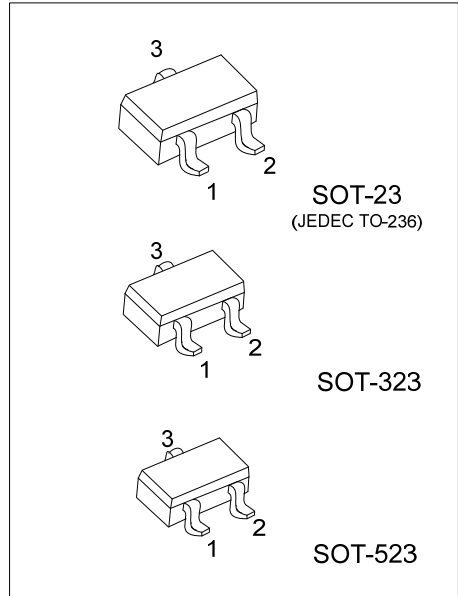
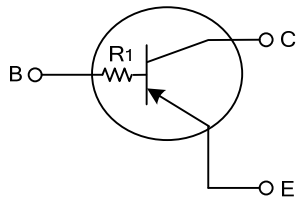
## PNP SILICON TRANSISITOR

### PNP DIGITAL TRANSISTOR (BUILT-IN RESISTOR)

#### ■ 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



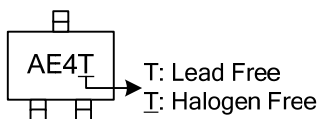
#### ■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
DTA144TL-AE3-R	DTA144TG-AE3-R	SOT-23	B	E	C	Tape Reel
DTA144TL-AL3-R	DTA144TG-AL3-R	SOT-323	B	E	C	Tape Reel
DTA144TL-AN3-R	DTA144TG-AN3-R	SOT-523	B	E	C	Tape Reel

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

<p>DTA144TG-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, AL3: SOT-323, AN3: SOT-523</p> <p>(3) G: Halogen Free and Lead Free, L: 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	$^\circ\text{C}$

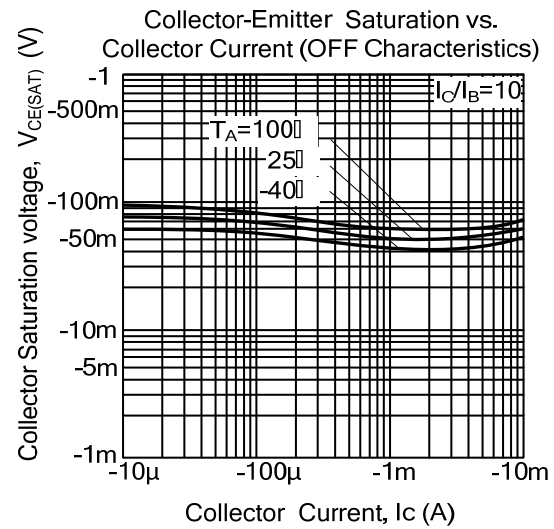
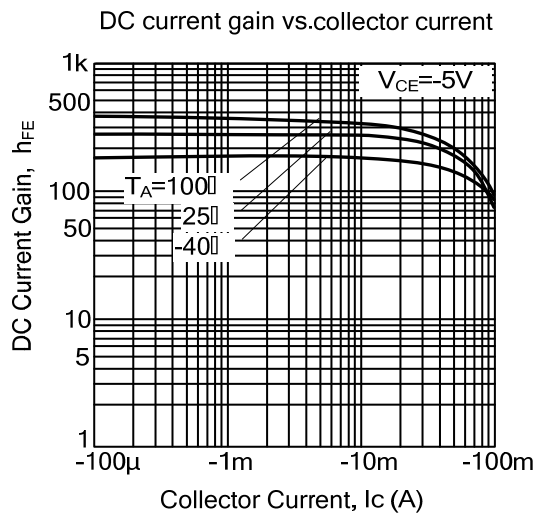
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.  
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ 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	$R_1$		32.9	47	61.1	k $\Omega$

Note: Transition frequency of the device.

# ■ TYPICAL CHARACTERISTICS



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