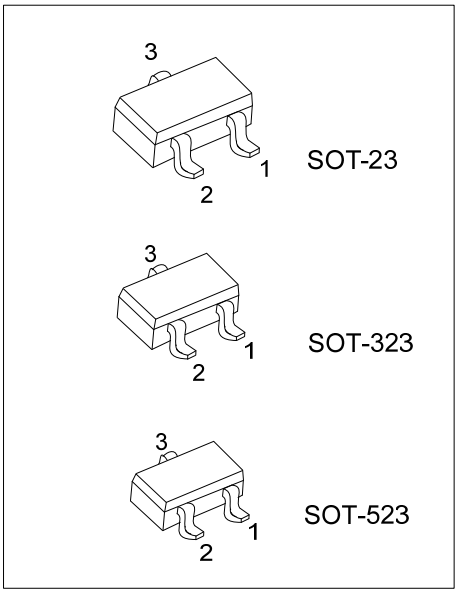
# DTA114T

**PNP SILICON TRANSISTOR**

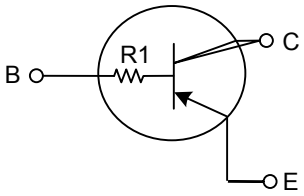
## DIGITAL TRANSISTORS (BUILT- IN BIAS RESISTORS)




### ■ 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

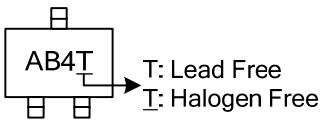
| Order Number | | Package | Pin Assignment | | | Packing |
|---|---|---|---|---|---|---|
| Lead Free | Halogen Free | | 1 | 2 | 3 | |
| DTA114TL-AE3-6-R | DTA114TG-AE3-6-R | SOT-23 | E | B | C | Tape Reel |
| DTA114TL-AL3-6-R | DTA114TG-AL3-6-R | SOT-323 | E | B | C | Tape Reel |
| DTA114TL-AN3-6-R | DTA114TG-AN3-6-R | SOT-523 | E | B | C | Tape Reel |

DTA114TL-AE3-6-R

(1)Packing Type
(2)Pin Assignment
(3)Package Type
(4)Lead Free

(1) R: Tape Reel
(2) refer to Pin Assignment
(3) AE3: SOT-23, AL3: SOT-323, AN3: SOT-523
(4) G: Halogen Free, L: Lead Free

### ■ MARKING





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## ■ ABSOLUTE MAXIMUM RATINGS ($T_A$ = 25℃)

| PARAMETER | | SYMBOL | RATING | 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 | SOT-23 | $P_C$ | 200 | mW |
| | SOT-323/SOT-523 | | 150 | |
| Junction Temperature | | $T_J$ | +150 | ℃ |
| Storage Temperature | | $T_{STG}$ | -55~+150 | ℃ |

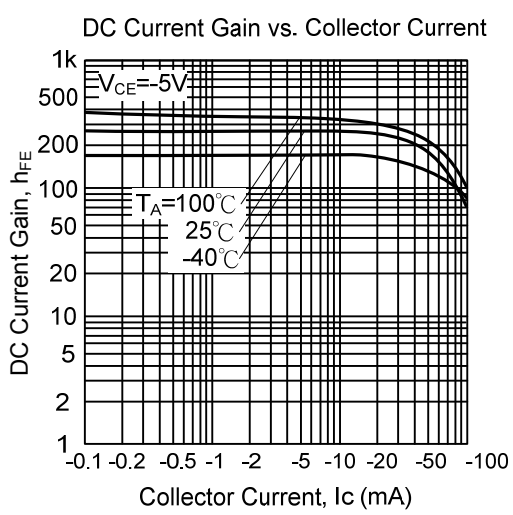
Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

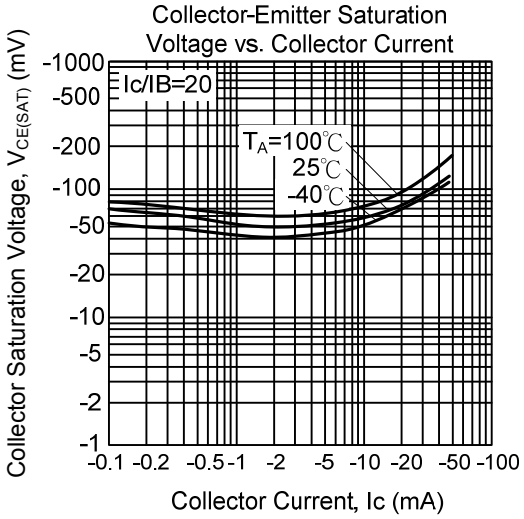
## ■ ELECTRICAL CHARACTERISTICS ($T_A$= 25℃, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| Collector-Base Breakdown Voltage | $BV_{CBO}$ | $I_C$=-50μA | -50 | | | V |
| Collector-Emitter Breakdown Voltage | $BV_{CEO}$ | $I_C$=-1mA | -50 | | | V |
| Emitter-Base Breakdown Voltage | $BV_{EBO}$ | $I_E$=-50μA | -5 | | | V |
| Collector-Emitter Saturation Voltage | $V_{CE(SAT)}$ | $I_C$=-10mA, $I_B$=-1mA | | | -0.3 | V |
| Collector Cutoff Current | $I_{CBO}$ | $V_{CB}$=-50V | | | -0.5 | μA |
| Emitter Cutoff Current | $I_{EBO}$ | $V_{EB}$=-4V | | | -0.5 | μA |
| DC Current Gain | $h_{FE}$ | $V_{CE}$=-5V, $I_C$=-1mA | 100 | 250 | 600 | |
| Input Resistance | $R_1$ | | 7 | 10 | 13 | kΩ |
| Transition Frequency | $f_T$ | $V_{CE}$=-10V, $I_E$=5mA,f=100MHz (Note) | | 250 | | MHz |

Note: Transition frequency of the device

## ■ TYPICAL CHARACTERISTICS




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