



DTA114T

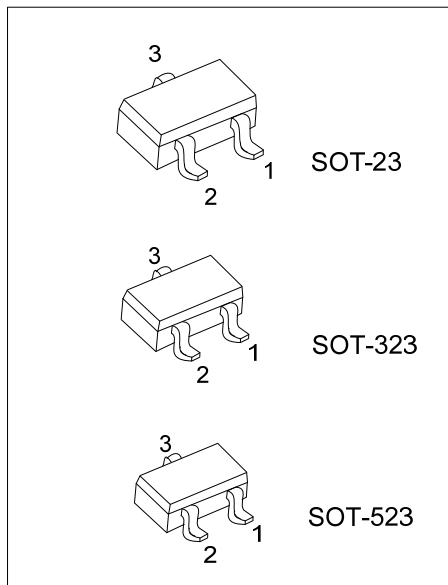
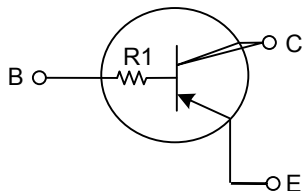
PNP SILICON TRANSISTOR

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

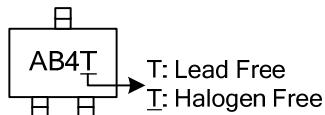


■ ORDERING INFORMATION

| 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 |

| | |
|---|---|
| <p>DTA114TL-AE3-6-R</p> <p>(1)Packing Type (2)Pin Assignment (3)Package Type (4)Lead Free</p> | <p>(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</p> |
|---|---|

■ MARKING



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

| 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 | $^\circ\text{C}$ |
| Storage Temperature | | T_{STG} | -55~+150 | $^\circ\text{C}$ |

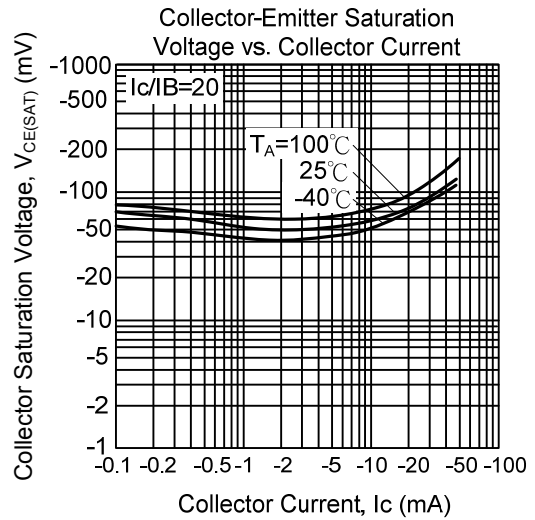
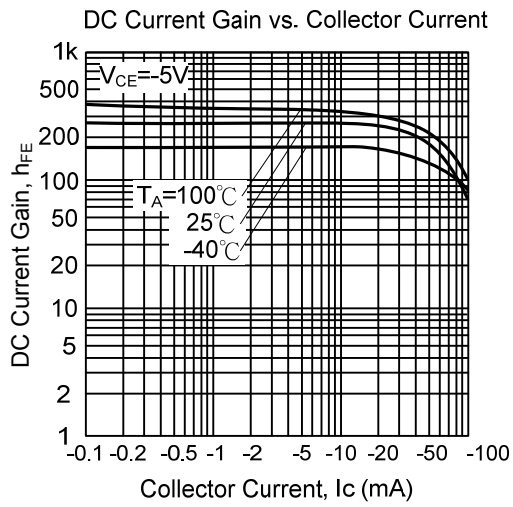
Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ 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-Emitter Saturation Voltage | $V_{CE(SAT)}$ | $I_C = -10\text{mA}, I_B = -1\text{mA}$ | | | -0.3 | V |
| Collector Cutoff Current | I_{CBO} | $V_{CB} = -50\text{V}$ | | | -0.5 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = -4\text{V}$ | | | -0.5 | μA |
| DC Current Gain | h_{FE} | $V_{CE} = -5\text{V}, I_C = -1\text{mA}$ | 100 | 250 | 600 | |
| Input Resistance | R_1 | | 7 | 10 | 13 | k Ω |
| Transition Frequency | f_T | $V_{CE} = -10\text{V}, I_E = 5\text{mA}, f = 100\text{MHz}$ (Note) | | 250 | | MHz |

Note: Transition frequency of the device

■ TYPICAL CHARACTERISTICS



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