



Micro Commercial Components

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DTA114EUA

Features

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors
- The bias resistors consist of thin-film resistors with complete isolation to allow negative biasing of the input. They also have the advantage of almost completely eliminating parasitic effects.
- Only the on/off conditions need to be set for operation, making device design easy

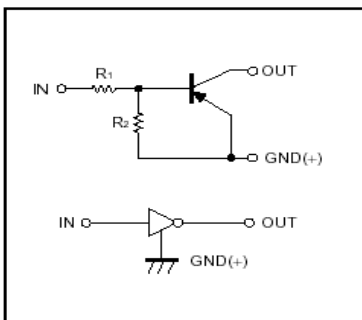
Absolute maximum ratings @ 25°C

| Symbol | Parameter | Min | Typ | Max | Unit |
|-----------------------|----------------------|-----|-------------|-----|------|
| V_{CC} | Supply voltage | --- | -50 | --- | V |
| V_{IN} | Input voltage | -40 | --- | 10 | V |
| I_O $I_{C(MAX)}$ | Output current | --- | -50 -100 | --- | mA |
| P_d | Power dissipation | --- | 200 | --- | mW |
| T_j | Junction temperature | --- | 150 | --- | °C |
| T_{slg} | Storage temperature | -55 | --- | 150 | °C |

Electrical Characteristics @ 25°C

| Symbol | Parameter | Min | Typ | Max | Unit |
|--------------|---|------|-----|-------|------------|
| $V_{I(off)}$ | Input voltage ($V_{CC}=-5V, I_O=-100\mu A$) | --- | --- | -0.5 | V |
| $V_{I(on)}$ | Input voltage ($V_O=0.3V, I_O=-10mA$) | -3.0 | --- | --- | V |
| $V_{O(on)}$ | Output voltage ($I_O/I_I=-10mA/-0.5mA$) | --- | --- | -0.3 | V |
| I_I | Input current ($V_I=-5V$) | --- | --- | -0.88 | mA |
| $I_{O(off)}$ | Output current ($V_{CC}=-50V, V_I=0$) | --- | --- | -0.5 | μA |
| G_I | DC current gain ($V_O=-5V, I_O=-5mA$) | 30 | --- | --- | |
| R_1 | Input resistance | 7.0 | 10 | 13 | K Ω |
| R_2/R_1 | Resistance ratio | 0.8 | 1.0 | 1.2 | |
| f_T | Transition frequency ($V_{CE}=-10V, I_E=5mA, f=100MHz$) | --- | 250 | --- | MHz |

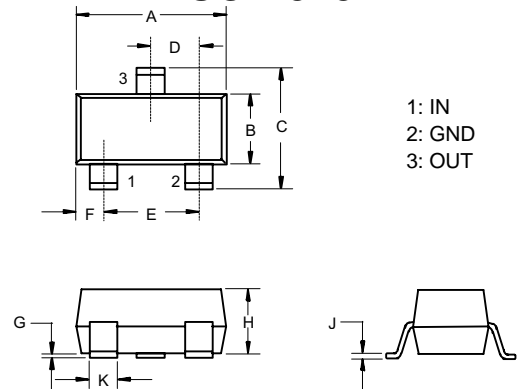
Equivalent circuit



MARKING: 14

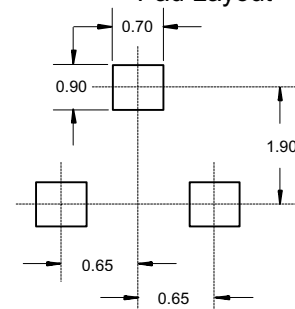
PNP Digital Transistors

SOT-323



| DIM | DIMENSIONS | | | | NOTE |
|-----|--------------|------|-------------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .071 | .087 | 1.80 | 2.20 | |
| B | .045 | .053 | 1.15 | 1.35 | |
| C | .079 | .087 | 2.00 | 2.20 | |
| D | .026 Nominal | | 0.65Nominal | | |
| E | .047 | .055 | 1.20 | 1.40 | |
| F | .012 | .016 | .30 | .40 | |
| G | .000 | .004 | .000 | .100 | |
| H | .035 | .039 | .90 | 1.00 | |
| J | .004 | .010 | .100 | .250 | |
| K | .012 | .016 | .30 | .40 | |

Suggested Solder Pad Layout





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Ordering Information

| | |
|------------------|----------------------|
| Device | Packing |
| (Part Number)-TP | Tape&Reel;3Kpcs/Reel |

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