



PZTA14

NPN SILICON TRANSISTOR

DARLINGTON TRANSISTOR

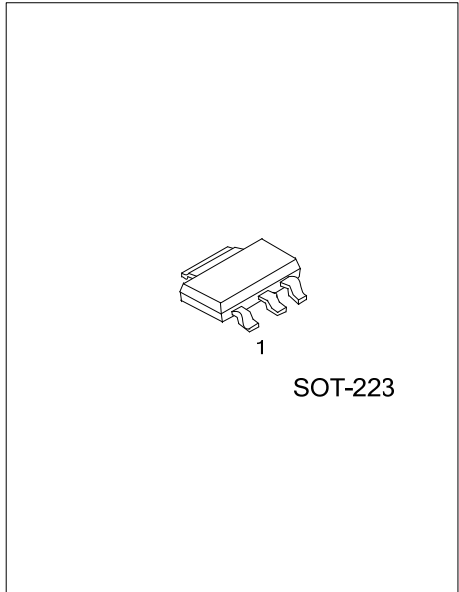
DESCRIPTION

The UTC **PZTA14** is a Darlington transistor.

FEATURES

* Collector-Emitter Voltage: $V_{CES} = 30V$

* Collector Power Dissipation: $P_{C(MAX)} = 1W$



ORDERING INFORMATION

| Ordering Number | | Package | Pin Assignment | | | Packing |
|-----------------|---------------|---------|----------------|---|---|-----------|
| Lead Free | Halogen Free | | 1 | 2 | 3 | |
| PZTA14L-AA3-R | PZTA14G-AA3-R | SOT-223 | B | C | E | Tape Reel |

| | |
|---|--|
| <p>PZTA14L-AA3-R</p> <p>(1) Packing Type (2) Package Type (3) Lead Free</p> | <p>(1) R: Tape Reel (2) AA3: SOT-223 (3) G: Halogen Free, L: Lead Free</p> |
|---|--|

■ ABSOLUTE MAXIMUM RATING (T_A=25°C)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|-----------------------------|------------------|------------|------|
| Collector-Base Voltage | V _{CBO} | 30 | V |
| Collector-Emitter Voltage | V _{CES} | 30 | V |
| Emitter-Base Voltage | V _{EBO} | 10 | V |
| Collector Power Dissipation | P _C | 1 | W |
| Collector Current | I _C | 500 | mA |
| Junction Temperature | T _J | 150 | °C |
| Storage Temperature | T _{STG} | -55 ~ +150 | °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°C, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------------------|----------------------|---|-------|-----|-----|------|
| Collector-Emitter Breakdown Voltage | BV _{CES} | I _C =100μA, I _B =0 | 30 | | | V |
| Collector Cut-Off Current | I _{CBO} | V _{CB} =30V, I _E =0 | | | 100 | nA |
| Emitter Cut-Off Current | I _{EBO} | V _{EB} =10V, I _C =0 | | | 100 | nA |
| DC Current Gain | h _{FE} | V _{CE} =5V, I _C =100mA | 20000 | | | |
| Collector-Emitter Saturation Voltage | V _{CE(SAT)} | I _C =100mA, I _B =0.1mA | | | 1.5 | V |
| Base-Emitter on Voltage | V _{BE(ON)} | V _{CE} =5V, I _C =100mA | | | 2.0 | V |
| Current Gain Bandwidth Product | f _T | V _{CE} =5V, I _C =10mA, f=100MHz | 125 | | | MHz |

Pulse test: Pulse Width < 300μs, Duty Cycle=2%

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