



PZTA14

NPN SILICON TRANSISTOR

DARLINGTON TRANSISTOR

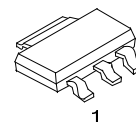
■ DESCRIPTION

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

■ FEATURES

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

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



SOT-223

■ 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

PZTA14L-AA3-R (1) Packing Type (2) Package Type (3) Lead Free	(1) R: Tape Reel (2) AA3: SOT-223 (3) G: Halogen Free, L: Lead Free
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■ ABSOLUTE MAXIMUM RATING ($T_A=25^{\circ}\text{C}$)

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	$^{\circ}\text{C}$
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-Emitter Breakdown Voltage	BV_{CES}	$I_C=100\mu\text{A}$, $I_B=0$	30			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30\text{V}$, $I_E=0$			100	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=10\text{V}$, $I_C=0$			100	nA
DC Current Gain	h_{FE}	$V_{CE}=5\text{V}$, $I_C=100\text{mA}$	20000			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=100\text{mA}$, $I_B=0.1\text{mA}$			1.5	V
Base-Emitter on Voltage	$V_{BE(ON)}$	$V_{CE}=5\text{V}$, $I_C=100\text{mA}$			2.0	V
Current Gain Bandwidth Product	f_T	$V_{CE}=5\text{V}$, $I_C=10\text{mA}$, $f=100\text{MHz}$	125			MHz

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

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