



UP1496

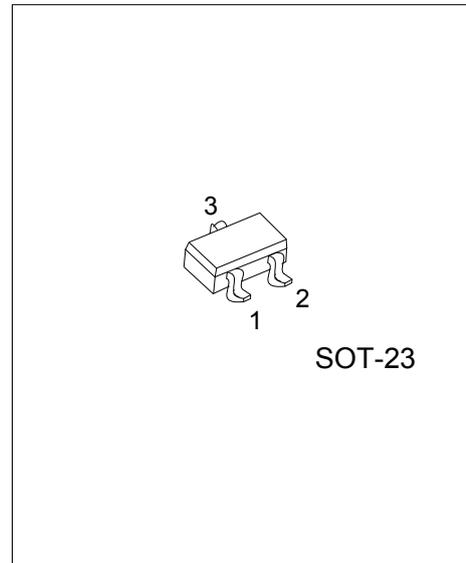
Preliminary

PNP SILICON TRANSISTOR

PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

DESCRIPTION

The UTC **UP1496** are series of PNP silicon planar transistors which have gain of 500 at $I_C=100\text{mA}$. It can be used in such applications like battery powered circuits and darlington replacements.



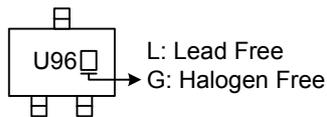
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UP1496L-AE3-R	UP1496G-AE3-R	SOT-23	B	E	C	Tape Reel

Note: Pin Assignment: B: Base E: Emitter C: Collector

UP1496G-AE3-R		
(1) Packing Type	(1) R: Tape Reel	
(2) Package Type	(2) AE3: SOT-23	
(3) Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free	

MARKING



■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-220	V
Collector-Emitter Voltage	V_{CEO}	-200	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-0.3	A
Peak Pulse Current	I_{CM}	-1	A
Base Current	I_B	-200	mA
Collector Dissipation ($T_a=25^\circ\text{C}$)	P_C	500	mW
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}	$I_C=-100\ \mu\text{A}$	-220			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-10\ \text{mA}$ (Note)	-200			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=-100\ \mu\text{A}$	-5			V
Collector Cutoff Current	I_{CBO}	$V_{CB}=-200\ \text{V}$			-100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-4\ \text{V}$			-100	nA
Collector -Emitter Cut-off Current	I_{CES}	$V_{CES}=-200\ \text{V}$			-100	nA
DC Current Transfer Ratio	h_{FE}	$V_{CE}=-10\ \text{V}$, $I_C=-1\ \text{mA}$	100			
		$V_{CE}=-10\ \text{V}$, $I_C=-100\ \text{mA}$ (Note)	100			
		$V_{CE}=-10\ \text{V}$, $I_C=-250\ \text{mA}$ (Note)	85		300	
		$V_{CE}=-10\ \text{V}$, $I_C=-400\ \text{mA}$ (Note)	35			
Base-Emitter Turn-On Voltage	$V_{BE(ON)}$	$V_{CE}=-10\ \text{V}$, $I_C=-250\ \text{mA}$ (Note)			-0.9	V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-100\ \text{mA}$, $I_B=-10\ \text{mA}$			-0.2	V
		$I_C=-250\ \text{mA}$, $I_B=-25\ \text{mA}$ (Note)			-0.35	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C=-250\ \text{mA}$, $I_B=-25\ \text{mA}$ (Note)			-1.0	V
Transition Frequency	f_T	$V_{CE}=-10\ \text{V}$, $I_C=-50\ \text{mA}$, $f=100\ \text{MHz}$	150			MHz
Output Capacitance	C_{OB}	$V_{CB}=-10\ \text{V}$, $f=1\ \text{MHz}$			10	pF

Note: Measured under pulse conditions. Pulse width=300 μs . Duty cycle \leq 2%.

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