



UP1496

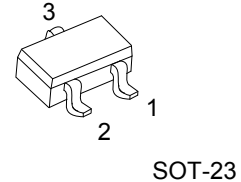
Preliminary

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.

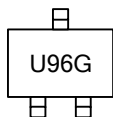


ORDERING INFORMATION

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

UP1496G-AE3-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) AE3: SOT-23
	(3)Halogen Free	(3) G: Halogen 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 $\leq 2\%$.

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.