



UB1580

Preliminary

PNP SILICON TRANSISTOR

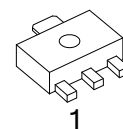
PNP EPITAXIAL PLANAR TRANSISTOR

DESCRIPTION

The UTC **UB1580** is a PNP Darlington transistor, designed for use in general purpose amplifier and low speed switching application..

FEATURES

- * Collector-Emitter Voltage: $V_{CE0} = -150V$
- * Collector Dissipation: $P_{C(MAX)} = 600mW$
- * Low Collector-Emitter Saturation Voltage



SOT-89

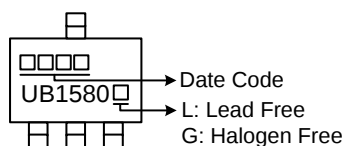
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UB1580L-AB3-R	UB1580G-AB3-R	SOT-89	B	C	E	Tape Reel

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

UB1580G-AB3-R (1)Packing Type (2)Package Type (3)Green Package		(1) R: Tape Reel (2) AB3: SOT-89 (3) G: Halogen Free and Lead Free, L: Lead Free
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MARKING



■ **ABSOLUTE MAXIMUM RATING** ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

PARAMETER		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CB0}	-150	V
Collector-Emitter Voltage		V_{CEO}	-150	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current	DC	I_C	-4	A
	Pulse	I_{CP}	-6	A
Collector Dissipation ($T_a=25^{\circ}\text{C}$)		P_C	600	mW
Junction Temperature		T_J	+150	$^{\circ}\text{C}$
Storage Temperature		T_{STG}	-55 ~ +150	$^{\circ}\text{C}$

Notes: 1. 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.

2. Pulse test: Pulse Width $\leq 350\mu\text{s}$, Duty Cycle $\leq 2\%$.

■ **THERMAL DATA**

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	208	$^{\circ}\text{C/W}$

■ **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}	$I_C=-1\text{mA}$, $I_B=0$	-150			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-100\mu\text{A}$, $I_E=0$	-150			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=-150\text{V}$, $I_E=0$			-10	μA
Collector Cut-off Current	I_{CEO}	$V_{CB}=-150\text{V}$, $I_B=0$			-10	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-5\text{V}$, $I_C=0$			-2	mA
DC Current Gain (Note)	h_{FE}	$V_{CE}=-4\text{V}$, $I_C=-1\text{A}$	1000			
		$V_{CE}=-4\text{V}$, $I_C=-2\text{A}$	500			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-2\text{A}$, $I_B=-2\text{mA}$			-2	V
Base-Emitter Saturation Voltage	$V_{BE(ON)}$	$V_{CE}=-4\text{V}$, $I_C=-2\text{A}$			-2.8	V
		$V_{CE}=-4\text{V}$, $I_C=-1\text{A}$			-2	V
		$V_{CE}=-4\text{V}$, $I_C=-4\text{A}$			-3	V
Output Capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $I_E=0$, $f=1\text{MHz}$			200	pF

Note: Pulse test: Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$.

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