



2SB1017

Preliminary

PNP EPITAXIAL SILICON TRANSISTOR

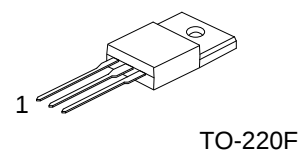
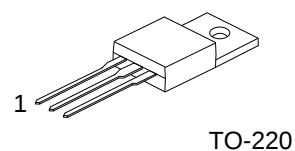
PNP SILICON EPITAXIAL TRANSISTOR

DESCRIPTION

The UTC 2SB1017 is a PNP silicon epitaxial transistor suited to be used in power amplifier applications.

FEATURES

* Low base drive



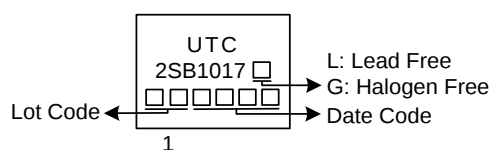
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SB1017L-x-TA3-T	2SB1017G-x-TA3-T	TO-220	B	C	E	Tube
2SB1017L-x-TF3-T	2SB1017G-x-TF3-T	TO-220F	B	C	E	Tube

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

2SB1017G-x-TA3-T	(1)Packing Type (2)Package Type (3)Rank (4)Green Package	(1) T: Tube (2) TA3: TO-220, TF3: TO-220F (3) x: refer to Classification of h_{FE} (4) G: Halogen Free and Lead Free, L: Lead Free
------------------	---	---

MARKING



■ **ABSOLUTE MAXIMUM RATINGS** ($T_C=25^\circ\text{C}$, unless otherwise noted)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	-80	V
Collector-Emitter Voltage		V_{CEO}	-80	V
Emitter-Base Voltage		V_{EBO}	-5	V
Base Current		I_B	-0.4	A
Collector Current		I_C	-4	A
Collector Dissipation ($T_C=25^\circ\text{C}$)	TO-220	P_C	25	W
	TO-220F		20	W
Junction Temperature		T_J	+150	$^\circ\text{C}$
Storage Temperature		T_{ST}	-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** ($T_C=25^\circ\text{C}$, unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=-50\text{mA}$, $I_B=0$	-80			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=-80\text{V}$, $I_E=0$			-30	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-5\text{V}$, $I_C=0$			-100	μA
DC Current Gain	h_{FE1}	$V_{CE}=-5\text{V}$, $I_C=-0.5\text{A}$	40		240	
	h_{FE2}	$V_{CE}=-5\text{V}$, $I_C=-3\text{A}$	15			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-3\text{A}$, $I_B=-0.3\text{A}$		-1	-1.7	V
Base-Emitter ON Voltage	$V_{BE(on)}$	$V_{CE}=-5\text{V}$, $I_C=-3\text{A}$		-1	-1.5	V
Current Gain Bandwidth Product	f_T	$V_{CE}=-5\text{V}$, $I_C=-0.5\text{A}$		9		MHz
Output Capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $f=1\text{MHz}$		130		pF

■ **CLASSIFICATION OF h_{FE1}**

RANK	R	O	Y
RANGE	40 ~ 80	70 ~ 140	120 ~ 240

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. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.