



2SB1017

Preliminary

PNP EPITAXIAL SILICON TRANSISTOR

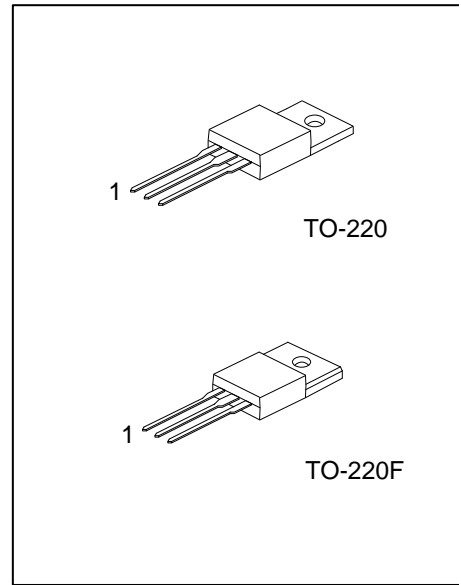
PNP SILICON EPITAXIAL TRANSISTOR

DESCRIPTION

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

FEATURES

* Low base drive



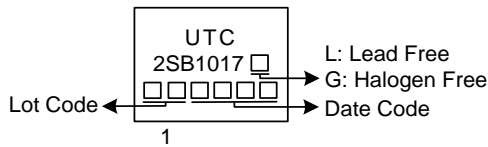
ORDERING INFORMATION

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

<p>2SB1017G-x-TA3-T</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Green Package</p>	<p>(1) T: Tube (2) TA3: TO-220, TF3: TO-220F (3) x: refer to Classification of hFE (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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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	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

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