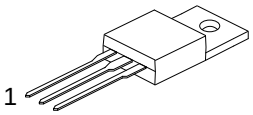
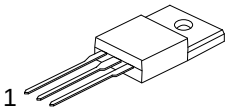
2SB1017 **Preliminary** ***PNP EPITAXIAL SILICON TRANSISTOR***

PNP SILICON EPITAXIAL TRANSISTOR



TO-220



TO-220F

■ DESCRIPTION

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

■ FEATURES

* Low base drive

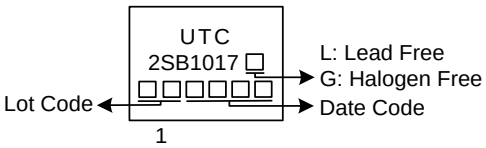
■ ORDERING INFORMATION

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°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°C)	TO-220	P_C	25	W
	TO-220F		20	W
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{ST}	-55 ~ +150	°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°C, unless otherwise noted)

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

■ CLASSIFICATION OF h_{FE1}

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