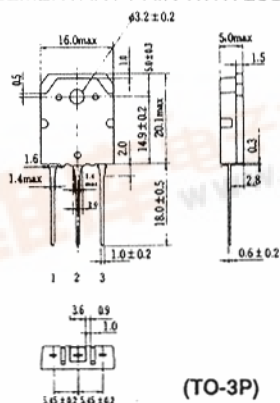


2SB1031 (K)

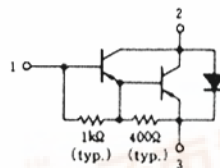
SILICON PNP EPITAXIAL

LOW FREQUENCY POWER AMPLIFIER

COMPLEMENTARY PAIR WITH 2SD1435®



1. Base
 2. Collector (Flange)
 3. Emitter
- (Dimensions in mm)

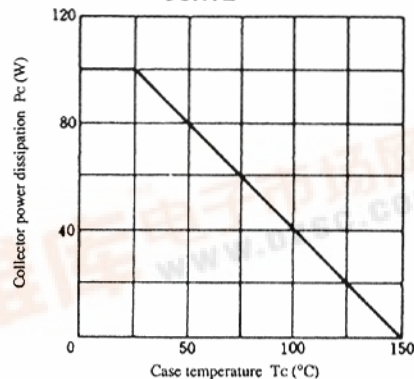


■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SB1031	Unit
Collector to base voltage	V _{CB0}	-100	V
Collector to emitter voltage	V _{CE0}	-100	V
Emitter to base voltage	V _{EB0}	-7	V
Collector current	I _C	-15	A
Collector peak current	i _{C(peak)}	-20	A
Base current	I _B	-3	A
Collector power dissipation	P _{C*}	100	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* Value at $T_C = 25^\circ\text{C}$

MAXIMUM COLLECTOR DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$	-100	—	—	V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	$I_E = -50\text{mA}, I_C = 0$	-7	—	—	V
Collector to emitter sustain voltage	$V_{CEO(sus)}$	$I_C = -200\text{mA}, R_{BE} = \infty^*$	-100	—	—	V
Collector cutoff current	I_{CBO}	$V_{CB} = -100\text{V}, I_E = 0$	—	—	-100	μA
	I_{CEO}	$V_{CE} = -80\text{V}, R_{BE} = \infty$	—	—	-1.0	μA
DC current transfer ratio	h_{FE}	$V_{CE} = -3\text{V}, I_C = -8\text{A}^*$	1000	—	20000	
Collector to emitter saturation voltage	$V_{CE(sat)1}$	$I_C = -8\text{A}, I_B = -16\text{mA}^*$	—	—	-2.0	V
Base to emitter saturation voltage	$V_{BE(sat)1}$		—	—	-2.5	V
Collector to emitter saturation voltage	$V_{CE(sat)2}$	$I_C = -15\text{A}, I_B = -150\text{mA}^*$	—	—	-3.0	V
Base to emitter saturation voltage	$V_{BE(sat)2}$		—	—	-3.5	V
Turn on time	t_{on}	$I_C = -8\text{A},$	—	2	—	μs
Turn off time	t_{off}	$I_{B1} = -I_{B2} = -16\text{mA}$	—	8	—	μs

* Pulse Test



2SB1031

