

2SB1330

Transistor, PNP

Features

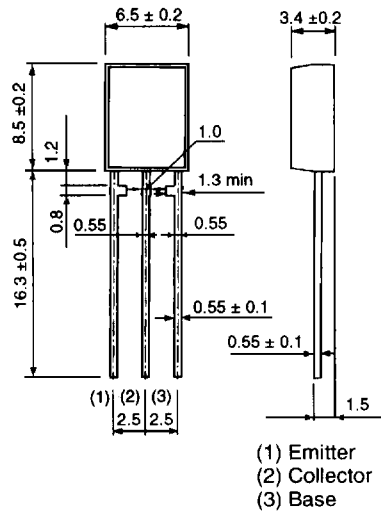
- available in MRT package
- high breakdown voltage and current capacity $V_{CEO} = -80\text{ V}$, $I_C = -0.7\text{ A}$
- complementary pair with 2SD2006

Applications

- medium power amplifier and switching

Dimensions (Units : mm)

2SB1330 (MRT)



Absolute maximum ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Collector-to-base voltage	V_{CBO}	-80	V
Collector-to-emitter voltage	V_{CEO}	-80	V
Emitter-to-base voltage	V_{EBO}	-5	V
Collector current	I_C	-700	mA
Collector dissipation	P_C	1.2	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

Electrical characteristics (unless otherwise noted, $T_a = 25^\circ\text{C}$)

Parameter	Symbol	Min	Typical	Max	Unit	Conditions
Collector-to-base breakdown voltage	BV_{CBO}	-80			V	$I_C = -50\mu\text{A}$
Collector-to-emitter breakdown voltage	BV_{CEO}	-80			V	$I_C = -2\text{ mA}$
Emitter-to-base breakdown voltage	BV_{EBO}	-5			V	$I_E = -50\mu\text{A}$
Collector cutoff current	I_{CBO}			-0.5	μA	$V_{CB} = -50\text{ V}$
Emitter cutoff current	I_{EBO}			-0.5	μA	$V_{EB} = -4\text{ V}$
DC current gain	h_{FE}	82		390		$V_{CE} = -3\text{ V}, I_C = -100\text{ mA}$
Collector-to-emitter saturation voltage	$V_{CE(sat)}$		-0.2	-0.4	V	$I_C/I_B = -500\text{ mA}/-50\text{ mA}$
Transition frequency	f_T		100		MHz	$V_{CE} = -10\text{ V}, I_E = 50\text{ mA}, f = 100\text{ MHz}$
Output capacitance	C_{ob}		14	20	pF	$V_{CB} = -10\text{ V}, I_E = 0\text{ A}, f = 1\text{ MHz}$

h_{FE} rankings

Item	P	Q	R
h_{FE}	82 ~ 180	120 ~ 270	180 ~ 390

Electrical characteristic curves

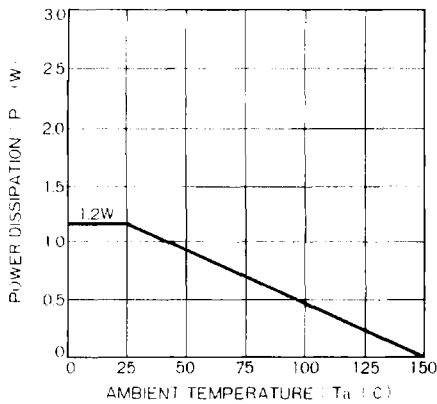


Figure 1

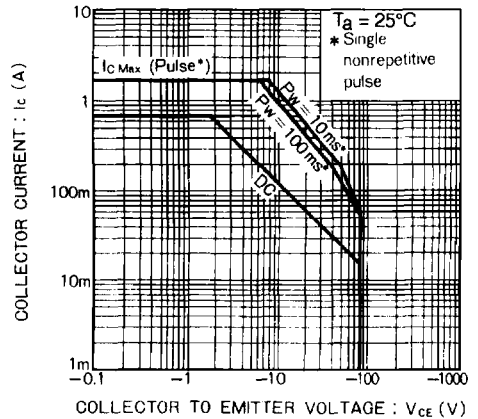


Figure 2

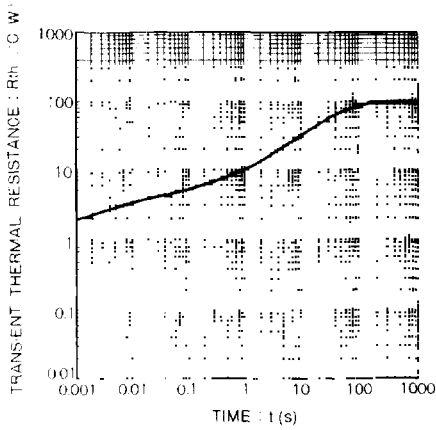


Figure 3

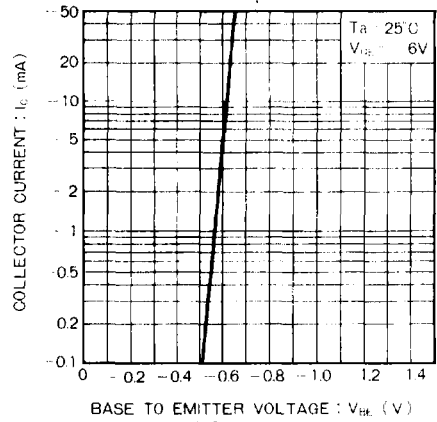


Figure 4

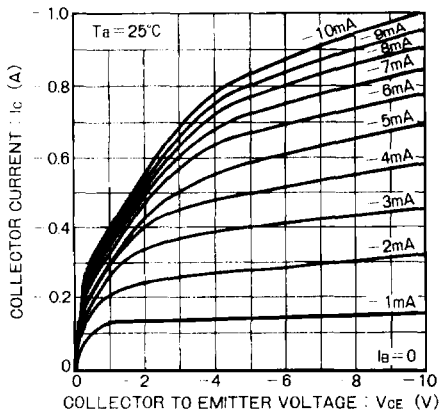


Figure 5

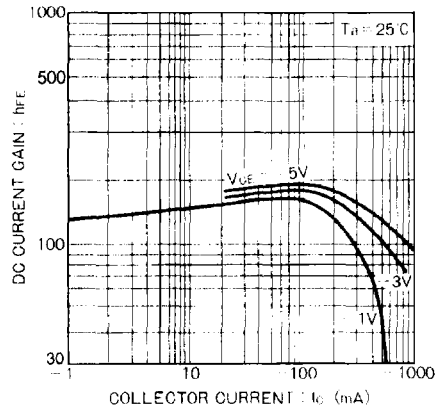


Figure 6

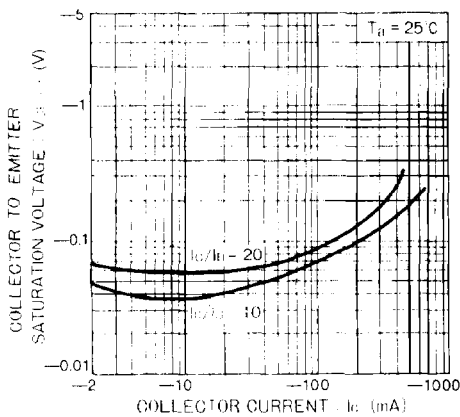


Figure 7

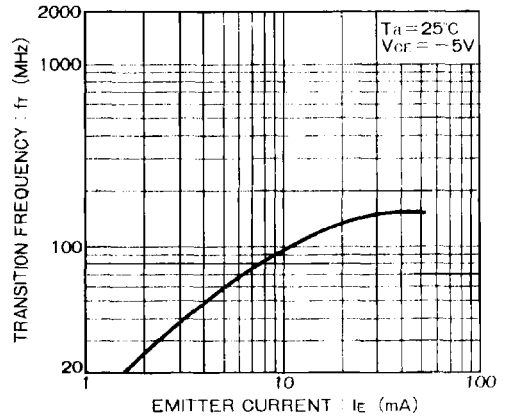


Figure 8

2SB1330 Transistor, PNP, 2SB Series

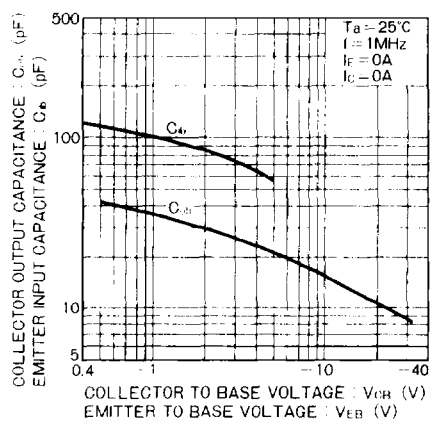


Figure 9

Ordering information

Package	Tape
Code	T105
Basic order quantity	2 000
2SB1330	★
★ = Standard, ☆ = Semi-standard, * = Special order	