

2SB1424 Transistor, PNP, 2SB series

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

Parameter	Symbol	Limits	Unit	Conditions
Collector-to-base voltage	V_{CB0}	-20	V	
Collector-to-emitter voltage	V_{CEO}	-20	V	
Emitter-to-base voltage	V_{EBO}	-6	V	
Collector current	I_C	-3	A	DC
		-5		Single pulse, $P_W = 10$ ms
Collector dissipation	P_C	0.5	W	Mounted on $40 \times 40 \times 0.7$ mm ceramic PCB
		2.0		
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_{CB0}	-20			V	$I_C = -50 \mu\text{A}$
Collector-to-emitter breakdown voltage	BV_{CEO}	-20			V	$I_C = -1$ mA
Emitter-to-base breakdown voltage	BV_{EBO}	-6			V	$I_E = -50 \mu\text{A}$
Collector cutoff current	I_{CB0}			-0.1	μA	$V_{CB} = -20$ V
Emitter cutoff current	I_{EBO}			-0.1	μA	$V_{EB} = -5$ V
DC current gain	h_{FE}	82		390		$V_{CE} = -2$ V, $I_C = -0.1$ A, single pulse
Collector-to-emitter saturation voltage	$V_{CE(sat)}$			-0.5	V	$I_C/I_B = -2$ A/-0.1 A, single pulse
Transition frequency	f_T		240		MHz	$V_{CE} = -2$ V, $I_E = 0.5$ A, $f = 100$ MHz
Output capacitance	C_{ob}		35		pF	$V_{CB} = -10$ V, $I_E = 0$ A, $f = 1$ MHz

h_{FE} rankings

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

Electrical characteristic curves

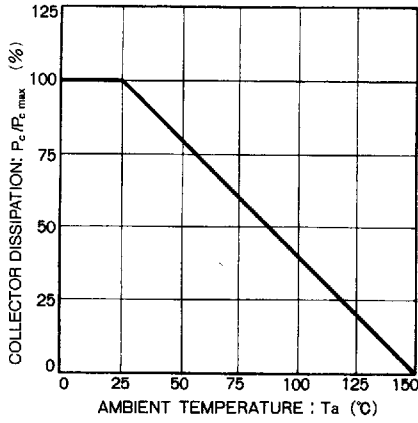


Figure 1

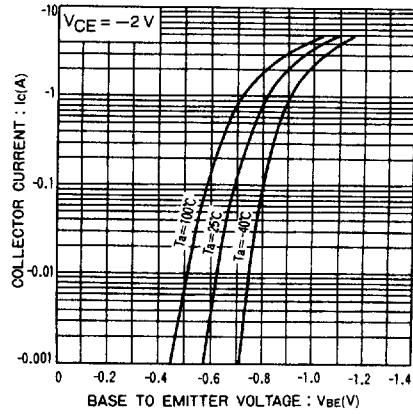


Figure 2

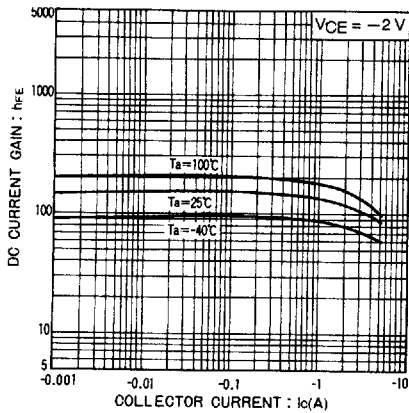


Figure 3

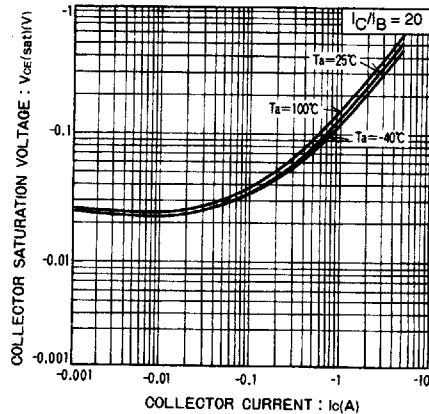


Figure 4

Ordering information

Package	Tape
Code	T100
Basic order quantity	1000
2SB1424	★
★ = Standard, ☆ = Semi-standard, * = Special order	