2SB1357

Transistor, PNP

Features

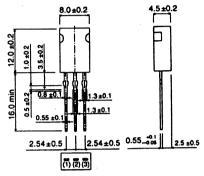
- available in HRT package
- low collector saturation voltage, typically $V_{CE(sat)} = -0.5 \text{ V at}$ $I_C/I_B = -2 \text{ A}/-0.2 \text{ A}$
- wide safe operating area (SOA)

Applications

power amplifier

Dimensions (Units: mm)

2SB1357 (HRT)



- (1) Base (2) Collector (3) Emitter

Absolute maximum ratings ($T_a = 25$ °C)

Parameter	Symbol	Limits	Unit	Conditions
Collector-to-base voltage	V _{CBO}	-60	٧	
Collector-to-emitter voltage	V _{CEO}	-50	V	
Emitter-to-base voltage	V _{EBO}	-5	V	
Collector current	Ic	-3	Α	Continuous (dc)
		-4.5	Α	Single pulse, P _W = 100 ms
Collector dissipation	P _C	1.8	W	
Junction temperature	Ti	150	°C	
Storage temperature	T _{stg}	-55 ~ +150	°C	

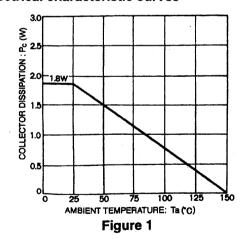
Electrical characteristics (unless otherwise noted, $T_a = 25$ °C)

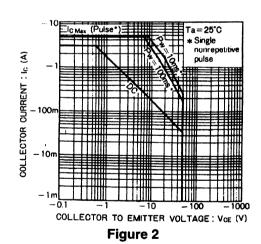
Parameter	Symbol	Min	Typical	Max	Unit	Conditions
Collector-to-base breakdown voltage	BV _{CBO}	-60			V	$I_C = -50 \mu\text{A}$
Collector-to-emitter breakdown voltage	BV _{CEO}	-50			٧	I _C = -1 mA
Emitter-to-base breakdown voltage	BV _{EBO}	-5				I _E = -50 μA
Collector cutoff current	I _{CBO}			-1.0	μΑ	V _{CB} = -40 V
Emitter cutoff current	I _{EBO}			-1.0	μΑ	V _{EB} = -4 V
DC current gain	h _{FE}	60		320		$V_{CE} = -3 \text{ V}, I_{C} = -0.5 \text{ A},$ single pulse
Collector-to-emitter saturation voltage	V _{CE(sat)}		-0.5	-1.0	٧	$I_{\rm C}/I_{\rm B} = -2$ A/ -0.2 A, single pulse
Base-to-emitter saturation voltage	V _{BE(sat)}			-1.5	٧	$I_{\rm C}/I_{\rm B} = -2$ A/ -0.2 A, single pulse
Transition frequency	f _T		70	·	MHz	$V_{CE} = -5 \text{ V}, I_{E} = 0.5 \text{ A}, f = 30 \text{ MHz}$
Output capacitance	C _{ob}	,	50		pF	$V_{CB} = -10 \text{ V}, I_E = 0 \text{ A}, f = 1 \text{ MHz}$

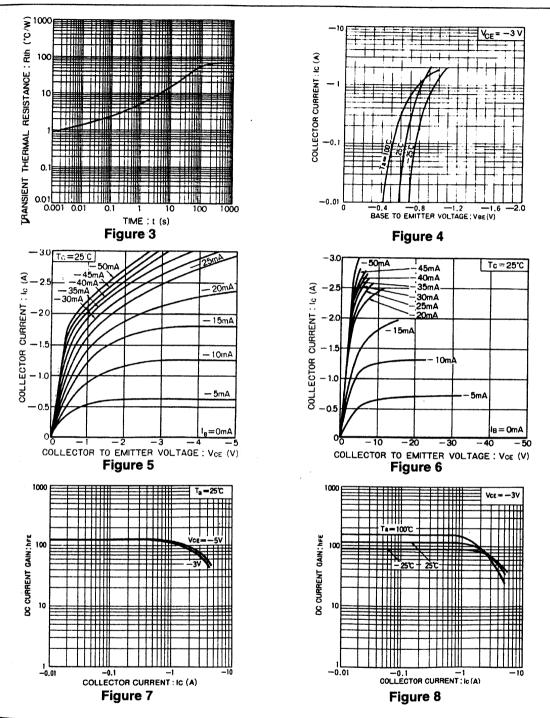
h_{FE} rankings

Item	D	E	F
h _{FE}	60 ~ 120	100 ~ 200	160 ~ 320

Electrical characteristic curves







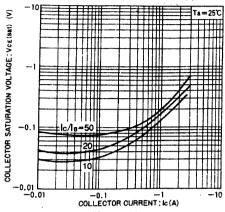


Figure 9

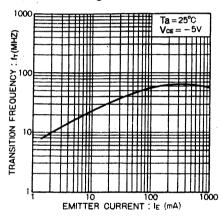


Figure 11

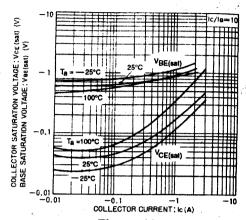


Figure 10

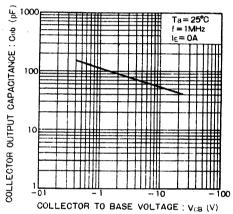


Figure 12

Ordering information

Package	Tape
Code	T114
Basic order quantity	1 000
2SB1357	*
★ = Standard, ☆ = Semi-sta	ndard, * = Special order

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