

Power Transistor (−120V, −1.5A)

2SB1236

●Features

- 1) High breakdown voltage. ($BV_{CEO} = -120V$)
- 2) Low collector output capacitance.
(Typ. 30pF at $V_{CB} = -10V$)
- 3) High transition frequency. ($f_T = 50MHz$)
- 4) Complements the 2SD1857.

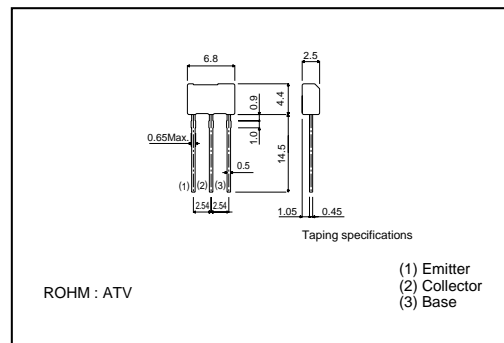
●Absolute maximum ratings ($T_a=25^{\circ}C$)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	−120	V
Collector-emitter voltage	V_{CEO}	−120	V
Emitter-base voltage	V_{EBO}	−5	V
Collector current	I_C	−1.5	A (DC)
		−3	A (Pulse) *1
Collector power dissipation	P_C	1	W *2
Junction temperature	T_J	150	$^{\circ}C$
Storage temperature	T_{stg}	−55~+150	$^{\circ}C$

*1 Single pulse $P_w = 100ms$

*2 Printed circuit board 1.7mm thick, collector plating 1cm² or larger.

●External dimensions (Units : mm)



●Packaging specifications and h_{FE}

Type	2SB1236
Package	ATV
h_{FE}	QR
Code	TV2
Basic ordering unit (pieces)	2500

●Electrical characteristics ($T_a = 25^{\circ}C$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	−120	−	−	V	$I_C = -50\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	−120	−	−	V	$I_{CV} = -1mA$
Emitter-base breakdown voltage	BV_{EBO}	−5	−	−	V	$I_E = -50\mu A$
Collector cutoff current	I_{CBO}	−	−	−1	μA	$V_{CB} = -100V$
Emitter cutoff current	I_{EBO}	−	−	−1	μA	$V_{EB} = -4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	−	−	−2	V	$I_C/I_B = -1A/-0.1A$ *
Base-emitter saturation voltage	$V_{BE(sat)}$	−	−	−1.5	V	$I_C/I_B = -1A/-0.1A$ *
DC current transfer ratio	h_{FE}	120	−	390	−	$V_{CE} = -5V, I_C = -0.1A$
Transition frequency	f_T	−	50	−	MHz	$V_{CE} = -5V, I_E = 0.1A, f = 30MHz$
Output capacitance	C_{ob}	−	30	−	pF	$V_{CB} = -10V, I_E = 0A, f = 1MHz$

* Measured using pulse current.