

Power Transistor (−160V , −1.5A)

2SB1275 / 2SB1236A

●Features

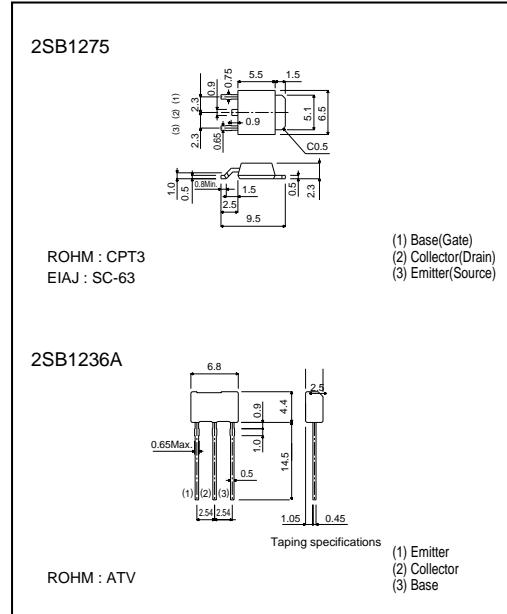
- 1) High breakdown voltage.($BV_{CEO} = -160V$)
- 2) Low collector output capacitance.
(Typ. 30pF at $V_{CB} = 10V$)
- 3) High transition frequency.($f_T = 50MHz$)
- 4) Complements the 2SD1918 / 2SD1857A.

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	-160	V
Collector-emitter voltage	V_{CEO}	-160	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(Tc=25°C)
		10	
	2SB1236A	1	W *2
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55~+150	°C

* 1 Single pulse Pw=100ms
* 2 Printed circuit board 1.7mm thick, collector plating 1cm² or larger.

●External dimensions (Units : mm)



●Packaging specifications and hFE

Type	2SB1275	2SB1236A
Package	CPT3	ATV
hFE	NP	PQ
Code	TL	TV2
Basic ordering unit (pieces)	2500	2500

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	-160	-	-	V	$I_C = -50\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	-160	-	-	V	$I_C = -1mA$
Emitter-base breakdown voltage	BV_{EBO}	-5	-	-	V	$I_E = -50\mu A$
Collector cutoff current	I_{CBO}	-	-	-1	μA	$V_{CB} = -120V$
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	2SB1275	56	-	180	-	$V_{CE} = -5V, I_C = -0.1A$
	2SB1236A	82	-	270	-	
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.