Power Transistor (–160V , –1.5A)

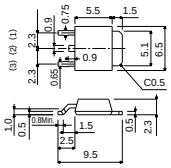
2SB1275 / 2SB1236A

●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.

●External dimensions (Units : mm)

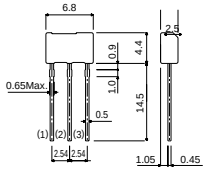
2SB1275



ROHM : CPT3
EIAJ : SC-63

(1) Base(Gate)
(2) Collector(Drain)
(3) Emitter(Source)

2SB1236A



Taping specifications

ROHM : ATV

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

●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	2SB1275	P_C	1	W(Tc=25°C)
			10	
	2SB1236A		1	W ∗2
Junction temperature		Tj	150	°C
Storage temperature		Tstg	–55~+150	°C

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

●Packaging specifications and h_{FE}

Type	2SB1275	2SB1236A
Package	CPT3	ATV
h_{FE}	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 = –50μA
Collector-emitter breakdown voltage		BV_{CEO}	–160	–	–	V	I_C = –1mA
Emitter-base breakdown voltage		BV_{EBO}	–5	–	–	V	I_E = –50μA
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	h_{FE}	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		Cob	–	30	–	pF	V_{CB} = –10V , I_E =0A , f = 1MHz

∗Measured using pulse current.