2SB1678

Silicon PNP epitaxial planer type

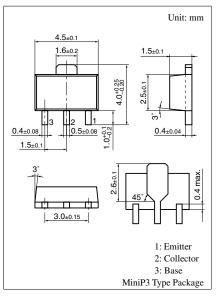
For low-frequency amplification

Features

- Low collector to emitter saturation voltage V_{CE(sat)}
- \bullet Large Peak collector current I_{CP}
- Mini power type package, allowing downsizing and thinning of the equipment and automatic insertion through the tape packing

Parameter	Symbol	Rating	Unit
Collector to base voltage	V _{CBO}	-30	V
Collector to emitter voltage	V _{CEO}	-20	V
Emitter to base voltage	V _{EBO}	-7	V
Peak collector current	I _{CP}	-5	А
Collector current	I _C	-3	А
Collector power dissipation *	P _C	1	W
Junction temperature	Tj	150	°C
Storage temperature	T _{stg}	-55 to +150	°C





Marking Symbol: 2K

Note) *: Printed circuit board copper foil for collector portion area: 1.0 Cm² or more, thickness: 1.7 mm Absolute maximum rating P_C Without heat sink shall be 0.5 W

Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector cutoff current	I _{CBO}	$V_{CB} = -10 \text{ V}, I_E = 0$			-100	nA
Emitter cutoff current	I _{EBO}	$V_{EB} = -5 V, I_C = 0$			-100	nA
Collector to emitter voltage	V _{CEO}	$I_{\rm C} = -1 {\rm mA}, I_{\rm B} = 0$	-20			V
Emitter to base voltage	V _{EBO}	$I_{\rm E} = -10 \ \mu A, \ I_{\rm C} = 0$	-7			V
Forward current transfer ratio *1, 2	h _{FE}	$V_{CE} = -2 V, I_C = 200 mA$	90		625	
Collector to emitter saturation voltage *1	V _{CE(sat)}	$I_{\rm C} = -3$ A, $I_{\rm B} = -0.1$ A			-1	V
Collector output capacitance	C _{ob}	$V_{CB} = -20 \text{ V}, I_E = 0, f = 1 \text{ MHz}$			85	pF
Transition frequency	f _T	$V_{CB} = -6 \text{ V}, I_E = 50 \text{ mA}, f = 200 \text{ MHz}$		120		MHz

Note) *1: Pulse measurement

*2: Rank classification

Rank	Р	Q	R
h_{FE}	90 to 135	120 to 205	180 to 625

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