2SD2184

Silicon NPN epitaxial planar type

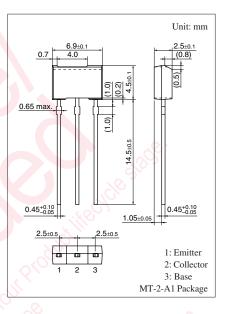
For low-frequency output amplification

Features

- High collector-emitter voltage (Base open) V_{CEO}
- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Allowing supply with the radial taping

Absolute Maximum Hatings $T_a = 25$ C						
Parameter	Symbol Rating		Unit			
Collector-base voltage (Emitter open)	V _{CBO}	150	v			
Collector-emitter voltage (Base open)	V _{CEO}	150	V			
Emitter-base voltage (Collector open)	V _{EBO}	5	V			
Collector current	I _C	1	А			
Peak collector current	I _{CP}	1.5	А			
Collector power dissipation *	P _C	1	W			
Junction temperature	Tj	150	°C			
Storage temperature	T _{stg}	-55 to +150	°C			





Note) *: Printed circuit board: Copper foil area of 1 cm² or more, and the board thickness of 1.7 mm for the collector portion

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

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_{\rm C} = 10 \ \mu {\rm A}, I_{\rm E} = 0$	150	SOL		V
Collector-emitter voltage (Base open)	V _{CEO}	$I_{\rm C} = 1 \text{ mA}, I_{\rm B} = 0$	150	0		V
Emitter-base voltage (Collector open)	V _{EBO}	$I_{\rm E} = 10 \ \mu A, I_{\rm C} = 0$	5			V
Collector-base cutoff current (Emitter open)	I _{CBO}	$V_{CB} = 75 V, I_E = 0$			0.1	μΑ
Forward current transfer ratio	h _{FE1} *2	$V_{CE} = 2 V, I_C = 100 mA$	120		340	
	h _{FE2} *1	$V_{CE} = 2 V, I_C = 500 mA$	40			
Collector-emitter saturation voltage *1	V _{CE(sat)}	$I_{\rm C} = 500 \text{ mA}, I_{\rm B} = 25 \text{ mA}$		0.11	0.30	V
Base-emitter saturation voltage *1	V _{BE(sat)}	$I_{\rm C} = 500 \text{ mA}, I_{\rm B} = 25 \text{ mA}$		0.8	1.2	V
Transition frequency	f _T	$V_{CB} = 10 \text{ V}, I_E = -50 \text{ mA}, f = 200 \text{ MHz}$		90		MHz
Collector output capacitance	C _{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		12	20	pF
(Common base, input open circuited)						

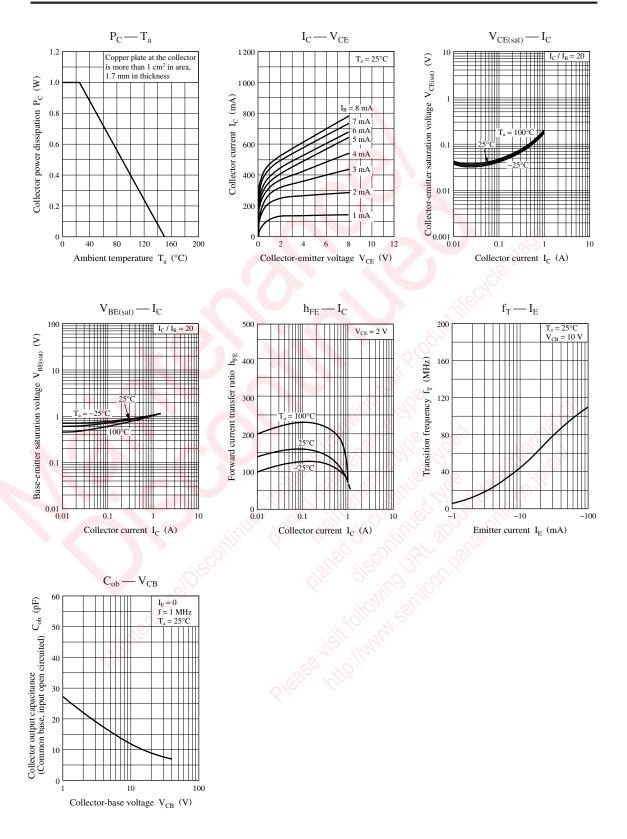
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

*2: Rank classification

Rank	R	S
h _{FE1}	120 to 240	170 to 340

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