

2SD0814A (2SD814A)

Silicon NPN epitaxial planar type

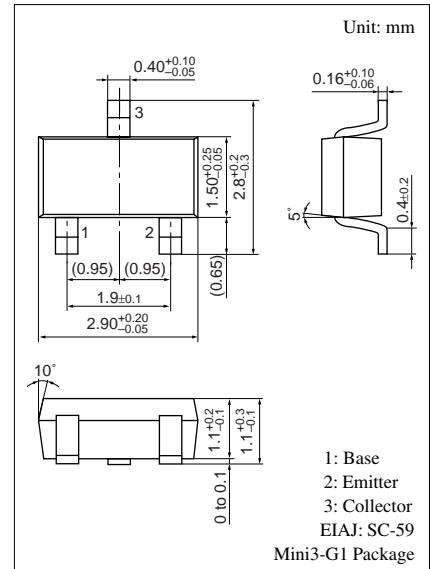
For high breakdown voltage low-frequency and low-noise amplification

■ Features

- High collector to emitter voltage V_{CEO}
- Low noise voltage NV
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	185	V
Collector to emitter voltage	V_{CEO}	185	V
Emitter to base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	100	mA
Collector current	I_C	50	mA
Collector power dissipation	P_C	200	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



Marking symbol: L

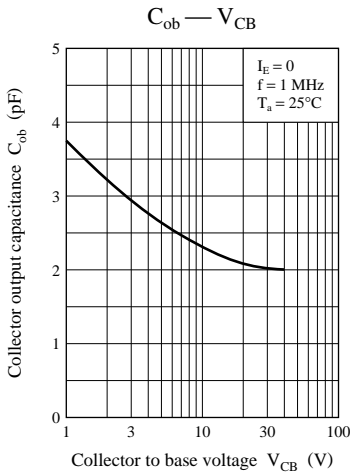
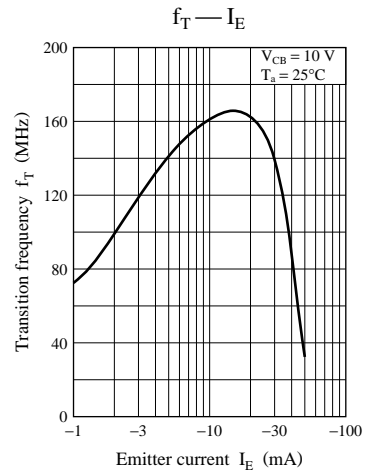
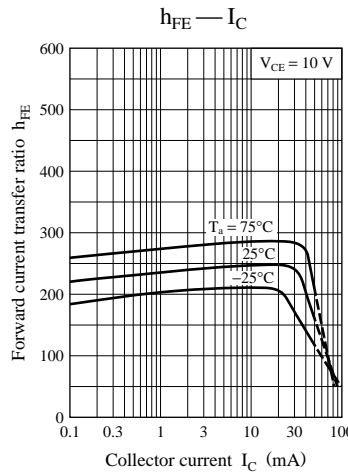
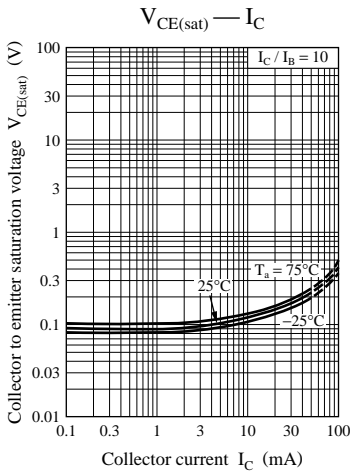
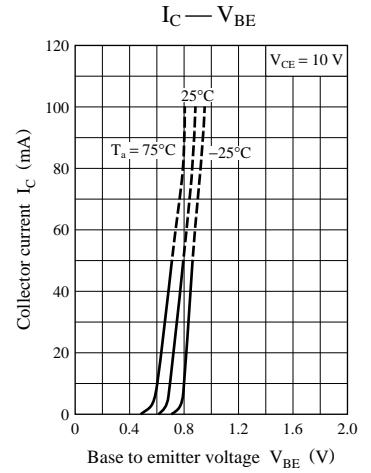
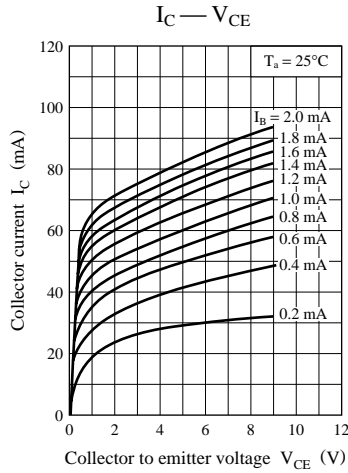
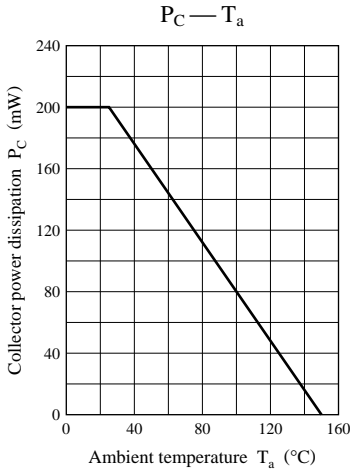
■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 100\text{ V}, I_E = 0$			1	μA
Collector to emitter voltage	V_{CEO}	$I_C = 100\ \mu\text{A}, I_B = 0$	185			V
Emitter to base voltage	V_{EBO}	$I_E = 10\ \mu\text{A}, I_C = 0$	5			V
Forward current transfer ratio *	h_{FE}	$V_{CE} = 5\text{ V}, I_C = 10\text{ mA}$	90		330	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 30\text{ mA}, I_B = 3\text{ mA}$			1	V
Transition frequency	f_T	$V_{CB} = 10\text{ V}, I_E = -10\text{ mA}, f = 200\text{ MHz}$		150		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$		2.3		pF
Noise voltage	NV	$V_{CE} = 10\text{ V}, I_C = 1\text{ mA}, G_V = 80\text{ dB}$ $R_g = 100\text{ k}\Omega, \text{Function} = \text{FLAT}$		150		mV

Note) *: h_{FE} Rank classification

ランク	Q	R	S
h_{FE}	90 to 155	130 to 220	185 to 330
Marking symbol	LQ	LR	LS

Note) The part number in the parenthesis shows conventional part number.



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