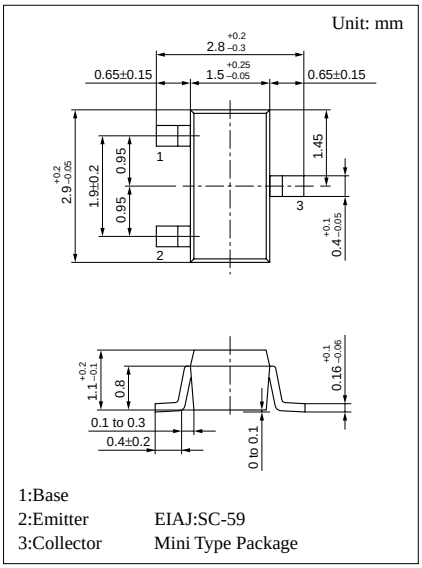
UNR2154 (UN2154)

Silicon PNP epitaxial planer transistor

For digital circuits

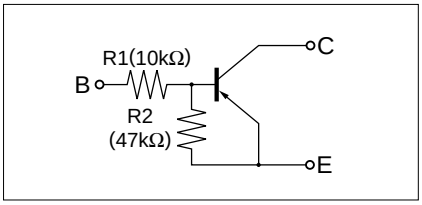
Features

- High forward current transfer ratio h_{FE}.
- Costs can be reduced through downsizing of the equipment and reduction of the number of parts.
- Mini type package, allowing downsizing of the equipment and automatic insertion through tape packing and magazine packing.



Marking Symbol: EV

Internal Connection



Absolute Maximum Ratings (Ta=25˚C)

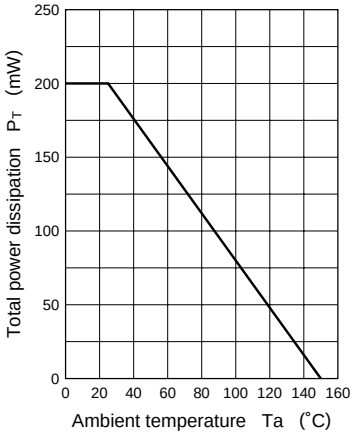
Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	–30	V
Collector to emitter voltage	V_{CEO}	–30	V
Collector current	I_C	–100	mA
Total power dissipation	P_T	200	mW
Junction temperature	T_j	150	˚C
Storage temperature	T_{stg}	–55 to +150	˚C

Electrical Characteristics (Ta=25˚C)

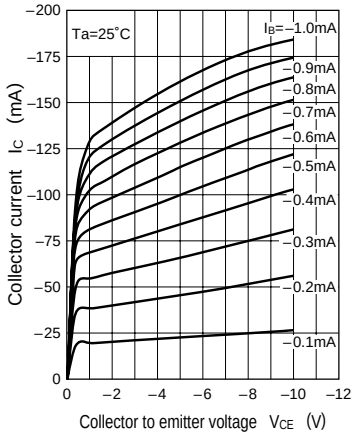
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	I_C = –10μA, I_E = 0	–30			V
Collector to emitter voltage	V_{CEO}	I_C = –2mA, I_B = 0	–30			V
Collector cutoff current	I_{CBO}	V_{CB} = –30V, I_E = 0			– 0.1	μA
	I_{CEO}	V_{CE} = –30V, I_B = 0			– 0.5	μA
Emitter cutoff current	I_{EBO}	V_{EB} = –3V, I_C = 0			– 0.1	mA
Forward current transfer ratio	h_{FE}	V_{CE} = –10V, I_C = –5mA	80			—
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = –50mA, I_B = – 0.33mA		– 0.5	–1.2	V
Output voltage high level	V_{OH}	V_{CC} = –5V, V_B = – 0.5V, R_L = 1kΩ	–4.9			V
Output voltage low level	V_{OL}	V_{CC} = –5V, V_B = –2.5V, R_L = 1kΩ			– 0.2	V
Input resistance	R_1		–30%	10	+30%	kΩ
Resistance ratio	R_1/R_2			0.213		—
Transition frequency	f_T	V_{CB} = –10V, I_E = 1mA, f = 200MHz		80		MHz

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

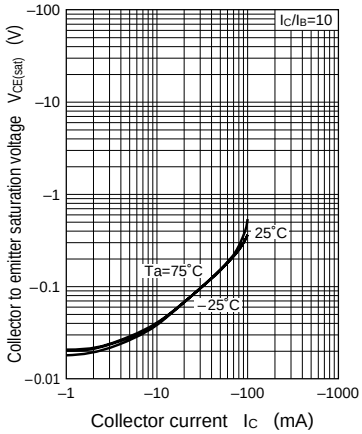
P_T — Ta



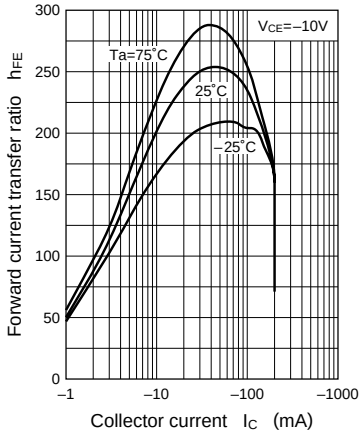
I_C — V_{CE}



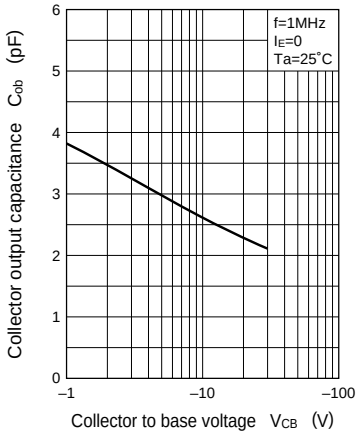
$V_{CE(sat)}$ — I_C



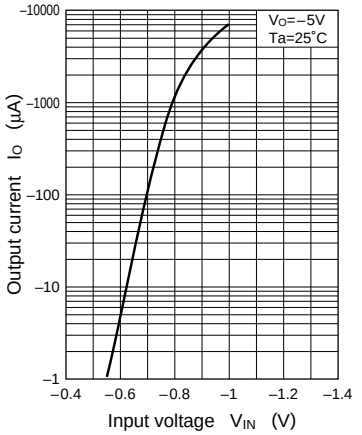
h_{FE} — I_C



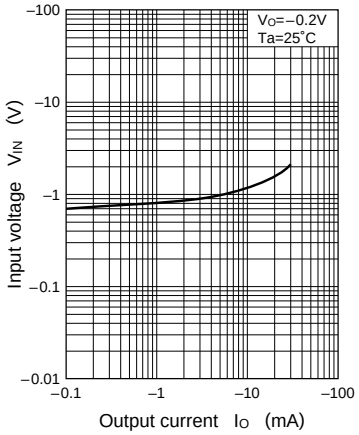
C_{ob} — V_{CB}



I_O — V_{IN}



V_{IN} — I_O



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