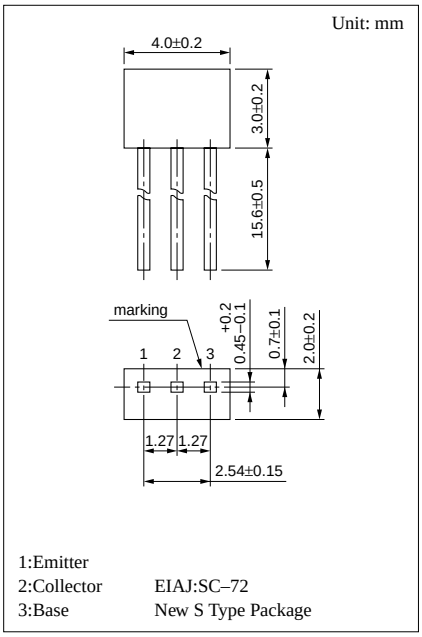
2SC4715

Silicon NPN epitaxial planer type

For low-frequency high breakdown voltage amplification



Features

- Satisfactory linearity of forward current transfer ratio h_{FE}.
- High collector to emitter voltage V_{CEO}.
- Small collector output capacitance C_{ob}.

Absolute Maximum Ratings (Ta=25˚C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	150	V
Collector to emitter voltage	V_{CEO}	150	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	300	mW
Junction temperature	T_j	150	˚C
Storage temperature	T_{stg}	–55 ~ +150	˚C

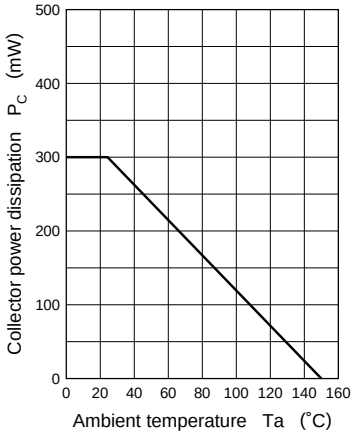
Electrical Characteristics (Ta=25˚C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 100V, I_E = 0			1	μA
Collector to emitter voltage	V_{CEO}	I_C = 100μA, I_B = 0	150			V
Emitter to base voltage	V_{EBO}	I_E = 10μA, I_C = 0	5			V
Forward current transfer ratio	h_{FE}*1	V_{CE} = 5V, I_C = 10mA	130		330	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 30mA, I_B = 3mA			1	V
Collector output capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz			3	pF
Transition frequency	f_T	V_{CB} = 10V, I_E = –10mA, f = 200MHz		160		MHz
Noise voltage	NV	V_{CE} = 10V, I_C = 1mA, G_V = 80dB R_g = 100kΩ, Function = FLAT		150		mV

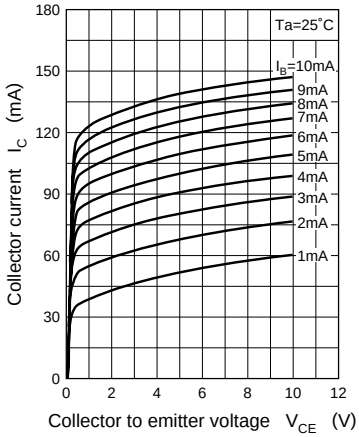
*1h_{FE} Rank classification

Rank	R	S
h_{FE}	130 ~ 220	185 ~ 330

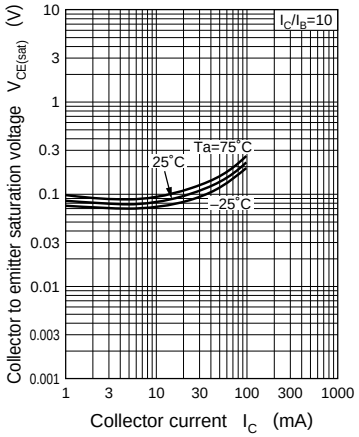
P_C — Ta



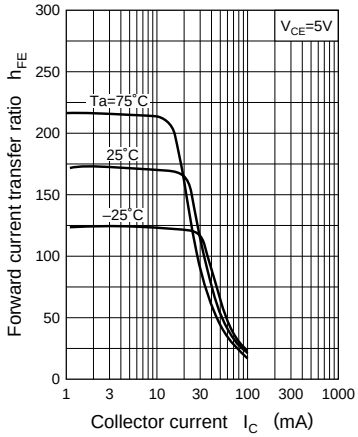
I_C — V_{CE}



$V_{CE(sat)}$ — I_C



h_{FE} — I_C



C_{ob} — V_{CB}