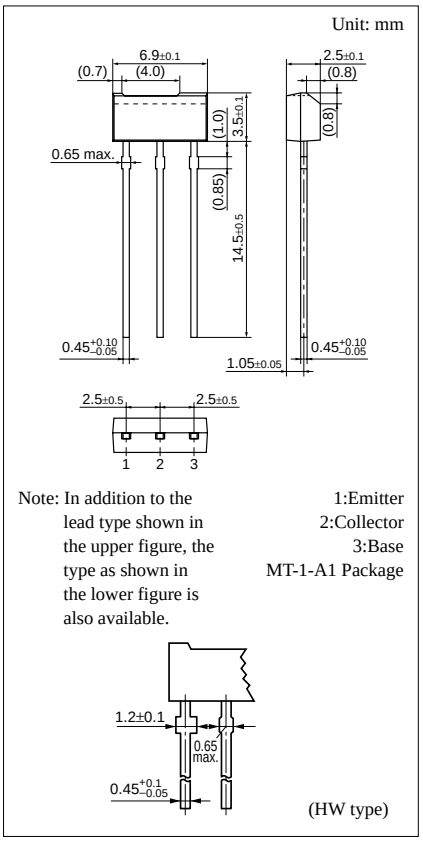
2SC4787

Silicon NPN epitaxial planer type

For intermediate frequency amplification



Features

- High transition frequency f_T.
- Satisfactory linearity of forward current transfer ratio h_{FE}.
- Allowing supply with the radial taping.

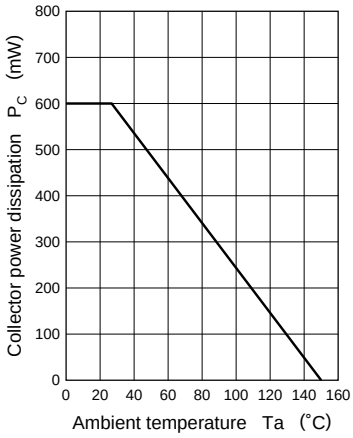
Absolute Maximum Ratings (Ta=25˚C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	45	V
Collector to emitter voltage	V_{CEO}	35	V
Emitter to base voltage	V_{EBO}	4	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	600	mW
Junction temperature	T_j	150	˚C
Storage temperature	T_{stg}	–55 ~ +150	˚C

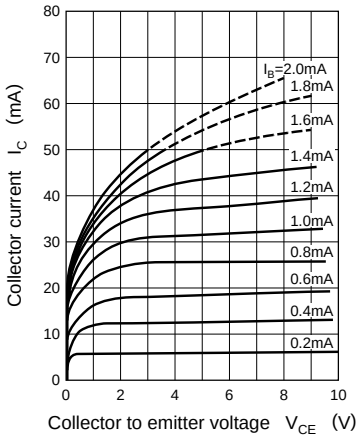
Electrical Characteristics (Ta=25˚C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 20V, I_E = 0			0.1	μA
Collector to base voltage	V_{CBO}	I_C = 100μA, I_E = 0	45			V
Collector to emitter voltage	V_{CEO}	I_C = 1mA, I_B = 0	35			V
Emitter to base voltage	V_{EBO}	I_E = 100μA, I_C = 0	4			V
Forward current transfer ratio	h_{FE}	V_{CE} = 10V, I_C = 10mA	20	50	100	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 20mA, I_B = 2mA			0.5	V
Common emitter reverse transfer capacitance	C_{re}	V_{CB} = 10V, I_E = –1mA, f = 10.7MHz			1.5	pF
Power gain	PG	V_{CB} = 10V, I_E = –10mA, f = 58MHz	18			dB
Transition frequency	f_T	V_{CB} = 10V, I_E = –10mA, f = 100MHz	300	500		MHz

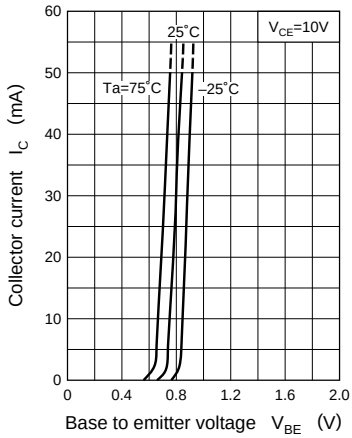
P_C — Ta



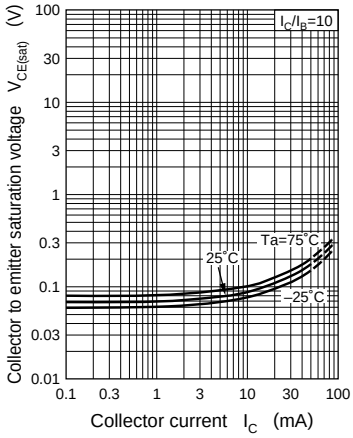
I_C — V_{CE}



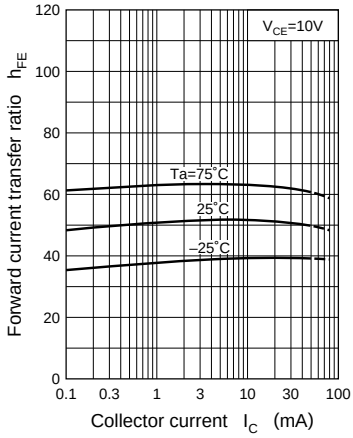
I_C — V_{BE}



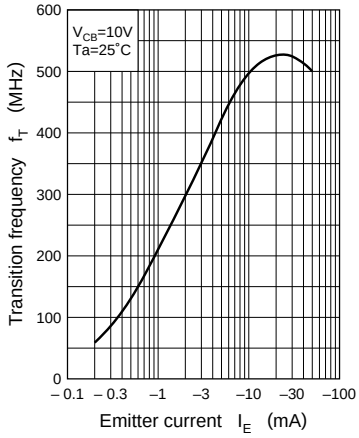
$V_{CE(sat)}$ — I_C



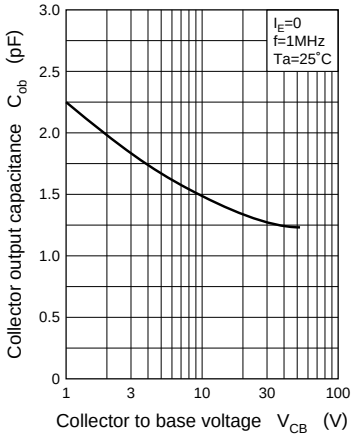
h_{FE} — I_C



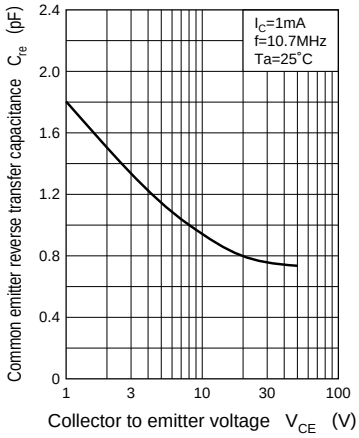
f_T — I_E



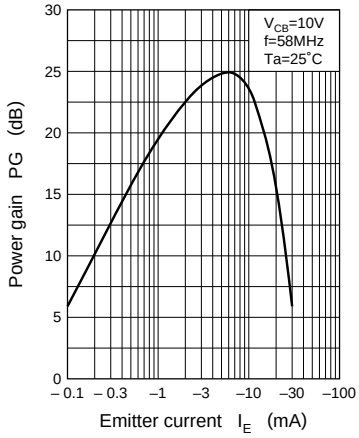
C_{ob} — V_{CB}



C_{re} — V_{CE}



PG — I_E



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