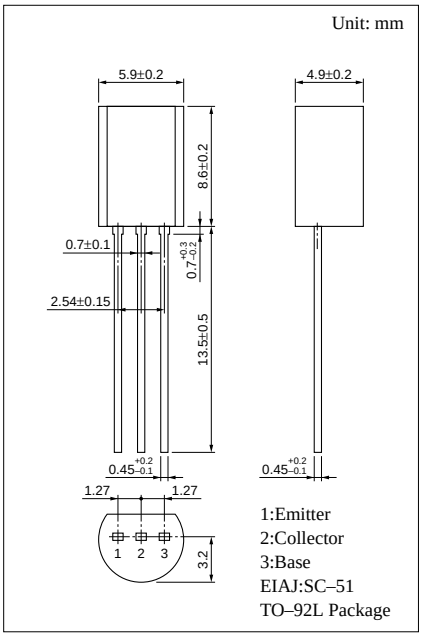
2SC1360, 2SC1360A

Silicon NPN epitaxial planer type

For intermadiate frequency amplification of TV image



Features

- High transition frequency f_T.
- Large collector power dissipation P_C.

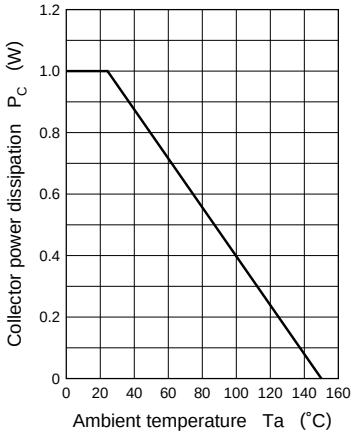
Absolute Maximum Ratings (Ta=25˚C)

Parameter		Symbol	Ratings	Unit
Collector to base voltage	2SC1360	V_{CBO}	50	V
	2SC1360A		60	
Collector to emitter voltage	2SC1360	V_{CEO}	45	V
	2SC1360A		60	
Emitter to base voltage		V_{EBO}	4	V
Collector current		I_C	50	mA
Collector power dissipation		P_C	1	W
Junction temperature		T_j	150	˚C
Storage temperature		T_{stg}	–55 ~ +150	˚C

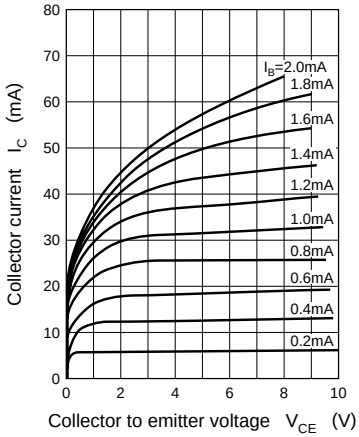
Electrical Characteristics (Ta=25˚C)

Parameter		Symbol	Conditions	min	typ	max	Unit
Collector cutoff current		I_{CBO}	V_{CB} = 20V, I_E = 0			100	nA
Collector to base voltage	2SC1360	V_{CBO}	I_C = 100µA, I_E = 0	50			V
	2SC1360A			60			
Collector to emitter voltage	2SC1360	V_{CEO}	I_C = 1mA, I_B = 0	45			V
	2SC1360A			60			
Emitter to base voltage		V_{EBO}	I_E = 100µA, I_C = 0	4			V
Forward current transfer ratio		h_{FE}	V_{CB} = 10V, I_E = –10mA	20		100	
Collector to emitter saturation voltage		$V_{CE(sat)}$	I_C = 20mA, I_B = 2mA			0.4	V
Transition frequency		f_T	V_{CB} = 10V, I_E = –10mA, f = 100MHz	300			MHz
Common emitter reverse transfer capacitance		C_{re}	V_{CE} = 10V, I_C = 1mA, f = 10.7MHz			1.5	pF
Power gain		PG	V_{CB} = 10V, I_E = –10mA, f = 58MHz	22		30	dB

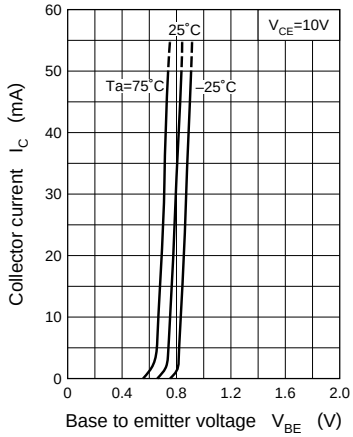
P_C — Ta



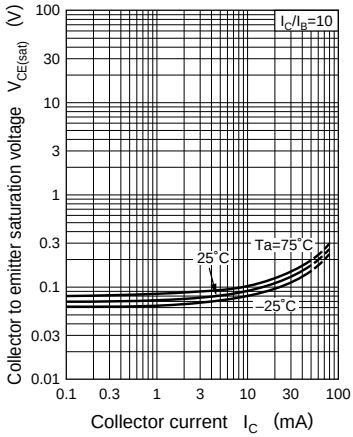
I_C — V_{CE}



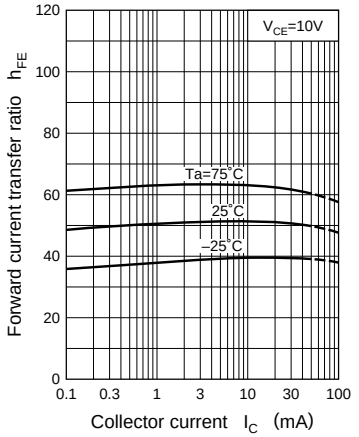
I_C — V_{BE}



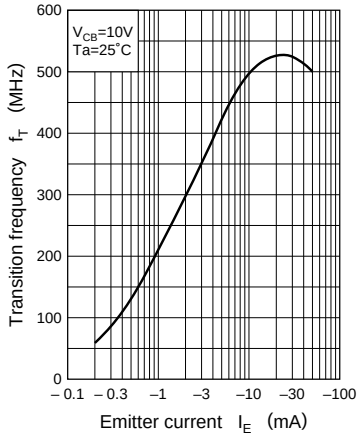
$V_{CE(sat)}$ — I_C



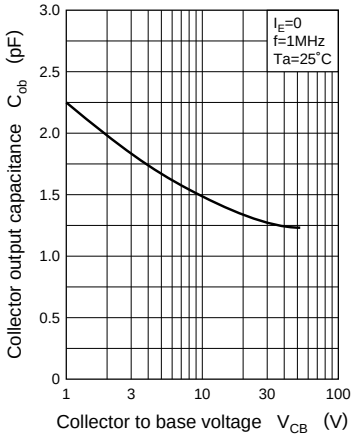
h_{FE} — I_C



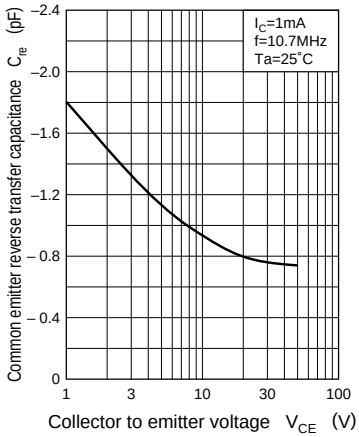
f_T — I_E



C_{ob} — V_{CB}



C_{re} — V_{CE}



PG — I_E