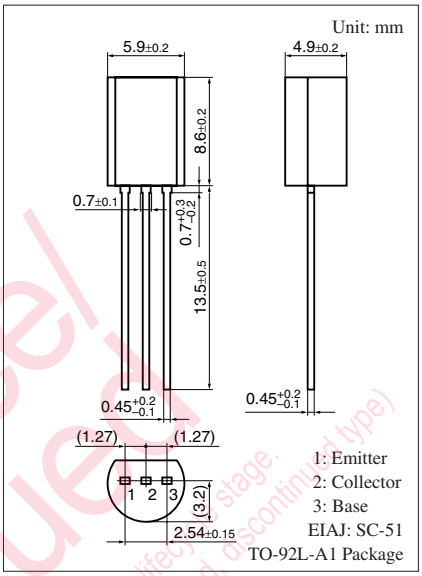
2SC1360, 2SC1360A

Silicon NPN epitaxial planar type

For intermediate frequency amplification of TV image



■ Features

- High transition frequency f_T
- Large collector power dissipation P_C

■ Absolute Maximum Ratings $T_a = 25°C$

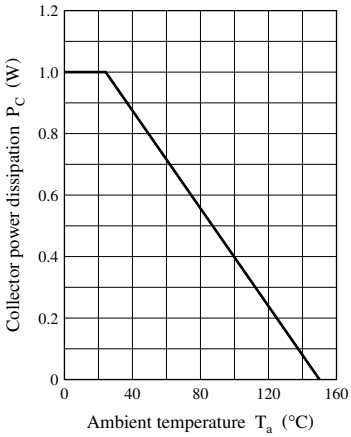
Parameter		Symbol	Rating	Unit
Collector-base voltage (Emitter open)	2SC1360	V_{CBO}	50	V
	2SC1360A		60	
Collector-emitter voltage (Base open)	2SC1360	V_{CEO}	45	V
	2SC1360A		60	
Emitter-base voltage (Collector open)		V_{EBO}	4	V
Collector current		I_C	50	mA
Collector power dissipation		P_C	1	W
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55 to +150	°C

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

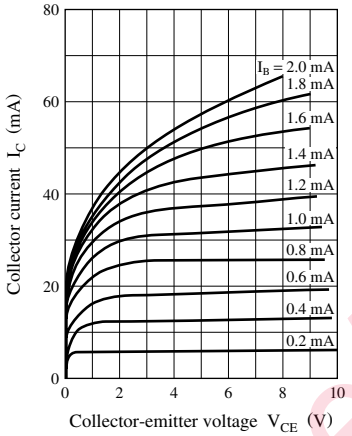
Parameter		Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	2SC1360	V_{CBO}	$I_C = 100\ \mu A, I_E = 0$	50			V
	2SC1360A			60			
Collector-emitter voltage (Base open)	2SC1360	V_{CEO}	$I_C = 3$ mA, $I_B = 0$	45			V
	2SC1360A		$I_C = 1$ mA, $I_B = 0$	60			
Emitter-base voltage (Collector open)		V_{EBO}	$I_E = 100\ \mu A, I_C = 0$	4			V
Collector-base cutoff current (Emitter open)		I_{CBO}	$V_{CB} = 20$ V, $I_E = 0$			100	nA
Forward current transfer ratio		h_{FE}	$V_{CE} = 10$ V, $I_C = 10$ mA	20	50	100	—
Collector-emitter saturation voltage		$V_{CE(sat)}$	$I_C = 20$ mA, $I_B = 2$ mA			0.4	V
Transition frequency	2SC1360	f_T	$V_{CB} = 10$ V, $I_E = -10$ mA, f = 100 MHz	300	500		MHz
	2SC1360A			300			
Reverse transfer capacitance (Common emitter)	2SC1360	C_{re}	$V_{CB} = 10$ V, $I_E = -1$ mA, f = 10.7 MHz		0.96	1.5	pF
	2SC1360A					1.5	
Power gain	2SC1360	G_P	$V_{CB} = 10$ V, $I_E = -10$ mA, f = 58 MHz	22	26	30	dB
	2SC1360A			22		30	

Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

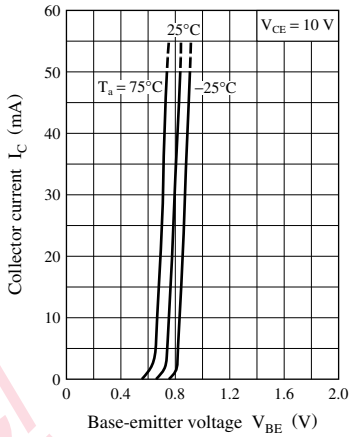
P_C — T_a



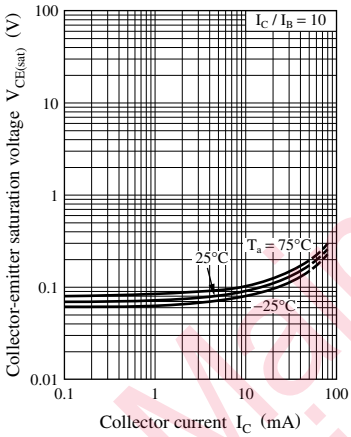
I_C — V_{CE}



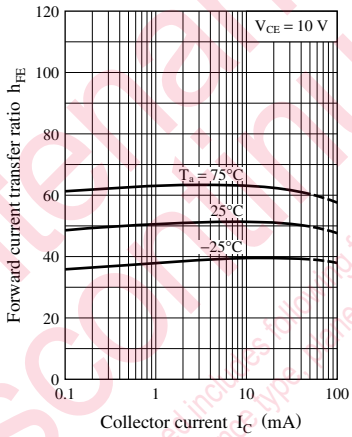
I_C — V_{BE}



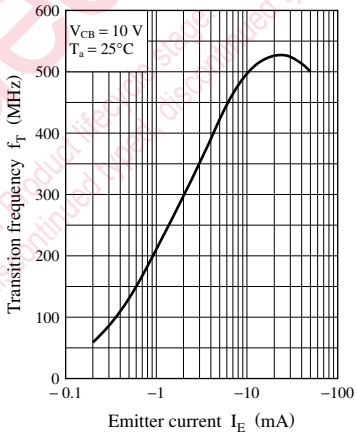
$V_{CE(sat)}$ — I_C



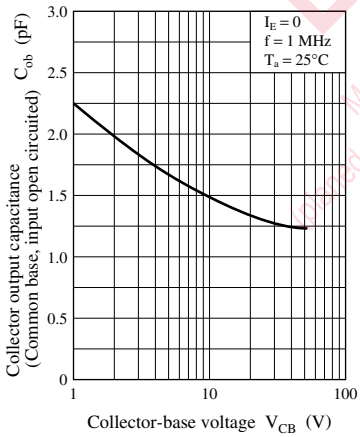
h_{FE} — I_C



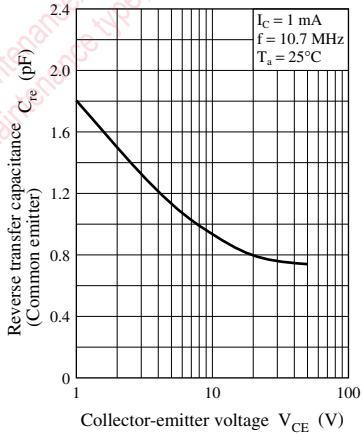
f_T — I_E



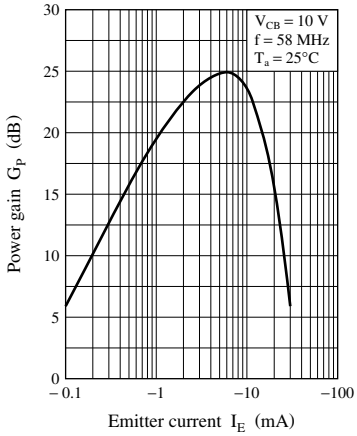
C_{ob} — V_{CB}



C_{re} — V_{CE}



G_P — I_E



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