

2SC4417

Silicon NPN epitaxial planar type

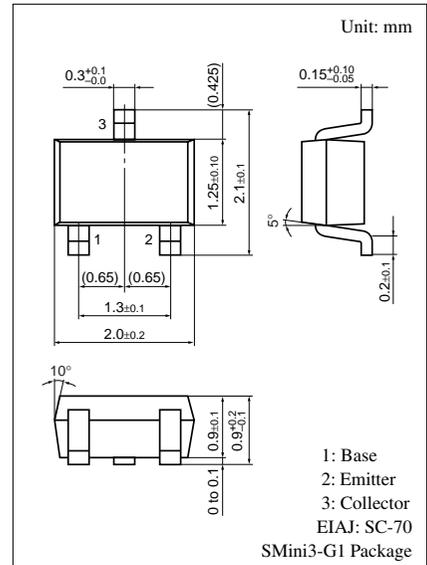
For intermediate frequency amplification of TV image

■ Features

- High transition frequency f_T
- Satisfactory linearity of forward current transfer ratio h_{FE}
- S-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

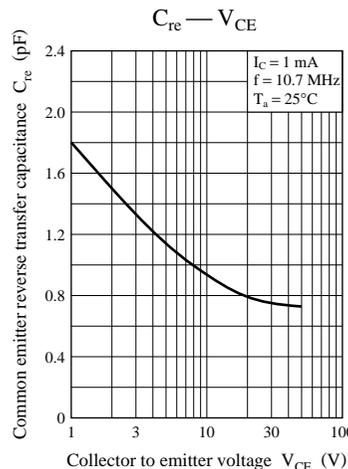
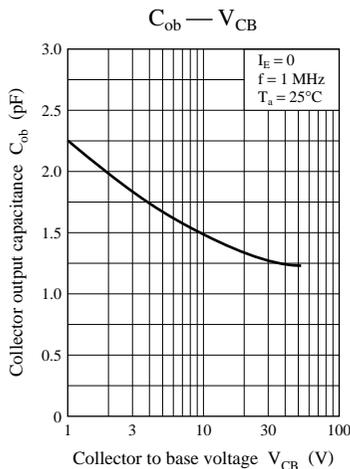
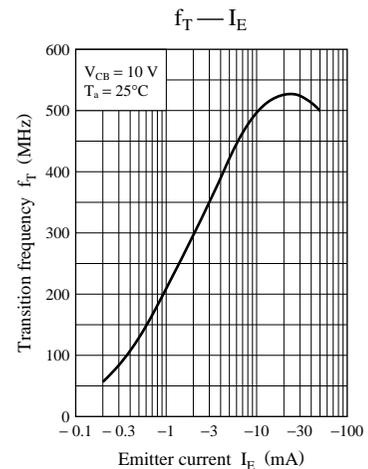
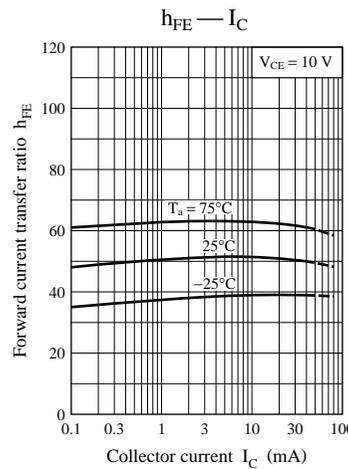
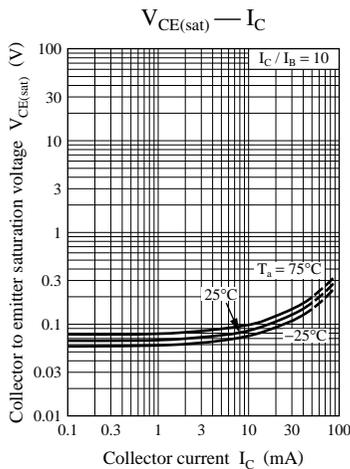
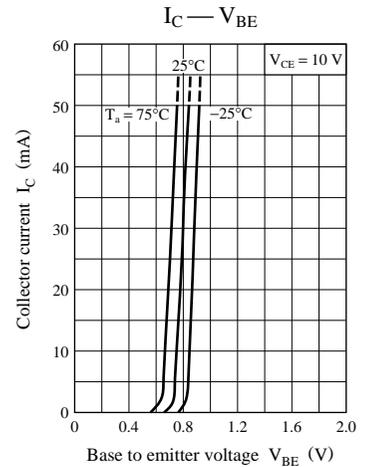
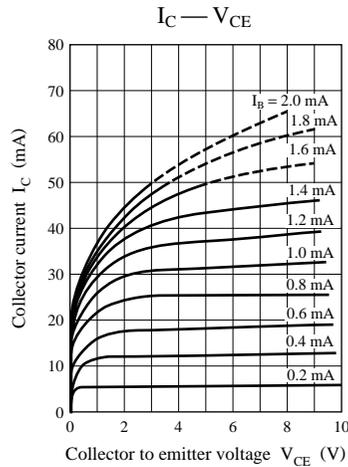
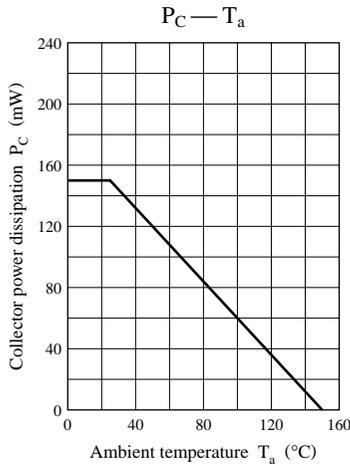
Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	45	V
Collector to emitter voltage	V_{CEO}	35	V
Emitter to base voltage	V_{EBO}	4	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



Marking symbol: ZZ

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CEO}	$V_{CE} = 20\text{ V}, I_B = 0$			10	μA
Collector to base voltage	V_{CBO}	$I_C = 10\ \mu\text{A}, I_E = 0$	45			V
Collector to emitter voltage	V_{CEO}	$I_E = 1\ \text{mA}, I_B = 0$	35			V
Emitter to base voltage	V_{EBO}	$I_E = 10\ \mu\text{A}, I_C = 0$	4			V
Forward current transfer ratio	h_{FE}	$V_{CB} = 10\ \text{V}, I_E = -10\ \text{mA}$	20	50	100	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 20\ \text{mA}, I_B = 2\ \text{mA}$			0.5	V
Transition frequency	f_T	$V_{CB} = 10\ \text{V}, I_E = -10\ \text{mA}, f = 200\ \text{MHz}$		500		MHz
Common emitter reverse transfer capacitance	C_{re}	$V_{CB} = 10\ \text{V}, I_E = -1\ \text{mA}, f = 10.7\ \text{MHz}$			1.5	pF



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