

# 2SC3187

## Silicon NPN triple diffusion planar type

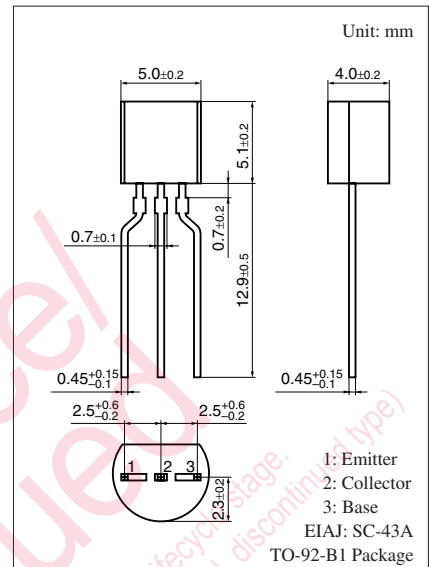
For small TV video output

### ■ Features

- High collector-emitter voltage (Base open)  $V_{CEO}$
- Small collector output capacitance (Common base, input open circuited)  $C_{ob}$

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

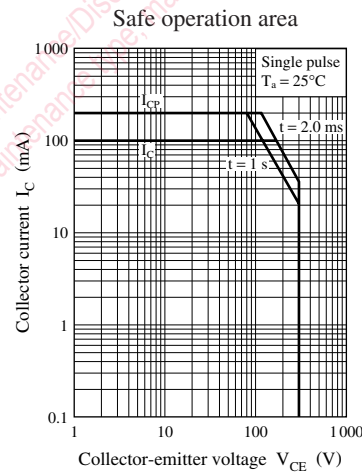
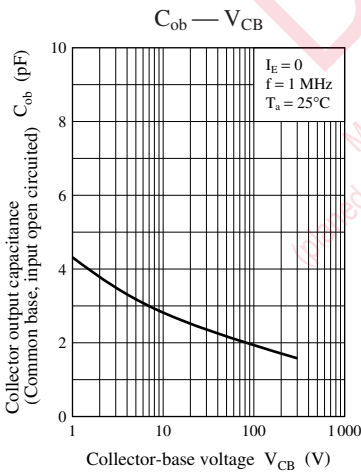
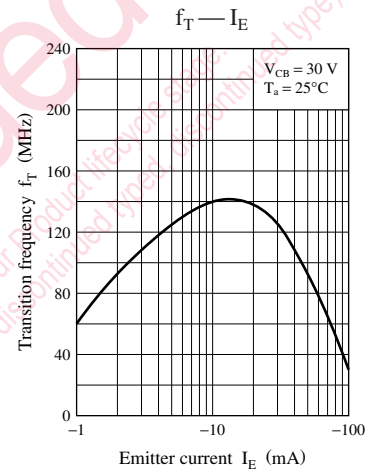
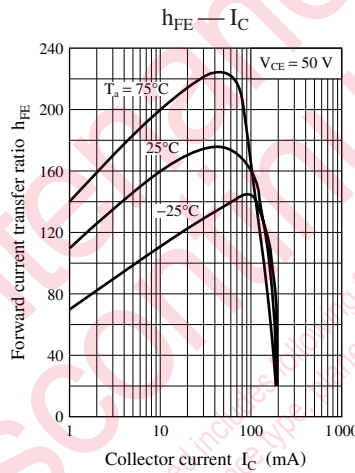
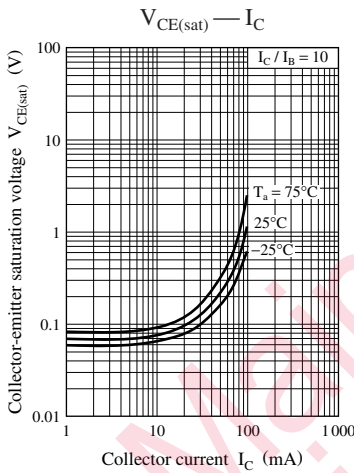
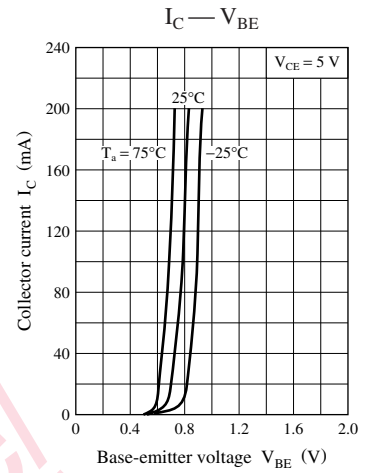
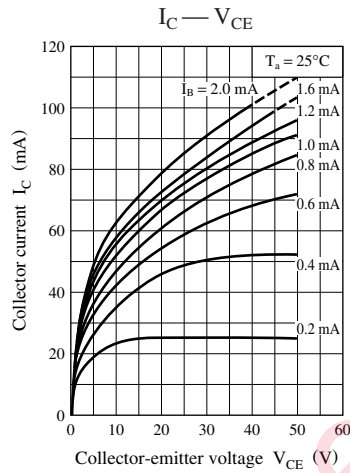
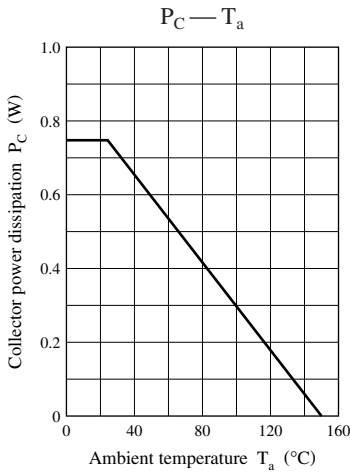
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	300	V
Collector-emitter voltage (Base open)	$V_{CEO}$	300	V
Emitter-base voltage (Collector open)	$V_{EBO}$	7	V
Collector current	$I_C$	100	mA
Peak collector current	$I_{CP}$	200	mA
Collector power dissipation	$P_C$	750	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$



### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	$I_C = 10 \mu\text{A}, I_E = 0$	300			V
Collector-emitter voltage (Base open)	$V_{CEO}$	$I_C = 100 \mu\text{A}, I_B = 0$	300			V
Emitter-base voltage (Collector open)	$V_{EBO}$	$I_E = 10 \mu\text{A}, I_C = 0$	7			V
Base-emitter voltage	$V_{BE}$	$V_{CE} = 10 \text{V}, I_C = 30 \text{mA}$			1.2	V
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 50 \text{V}, I_C = 5 \text{mA}$	50		250	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 30 \text{mA}, I_B = 3 \text{mA}$			1.5	V
Transition frequency	$f_T$	$V_{CB} = 30 \text{V}, I_E = -20 \text{mA}, f = 200 \text{MHz}$	70	140		MHz
Collector output capacitance (Common base, input open circuited)	$C_{ob}$	$V_{CB} = 30 \text{V}, I_E = 0, f = 1 \text{MHz}$		1.9		pF

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



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