

# 2SC3965

## Silicon NPN triple diffusion planer type

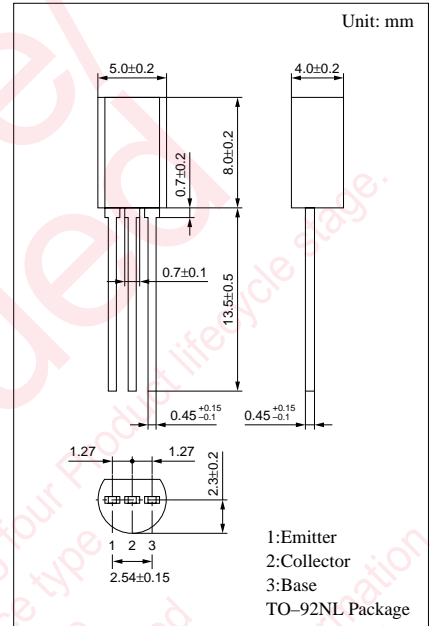
For small TV video output

### Features

- High collector to emitter voltage  $V_{CEO}$ .
- Small collector output capacitance  $C_{ob}$ .
- Allowing supply with the radial taping.

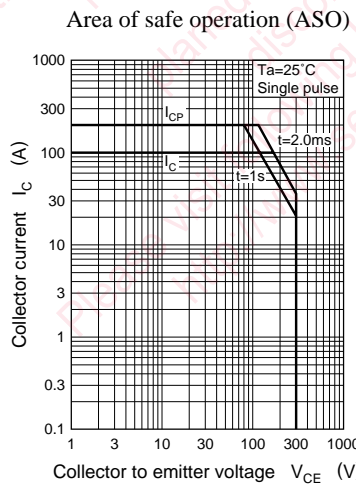
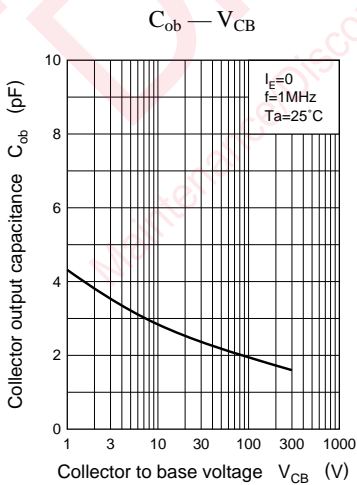
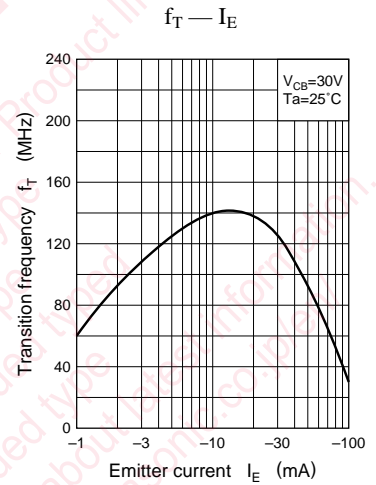
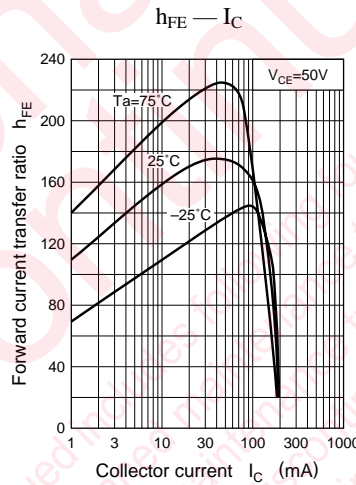
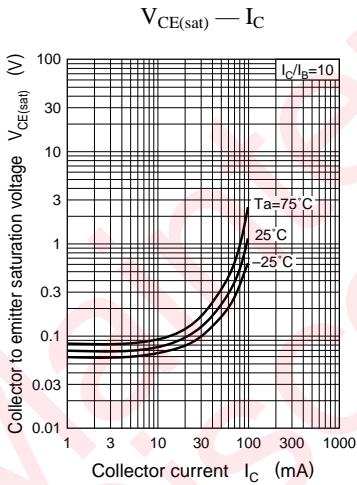
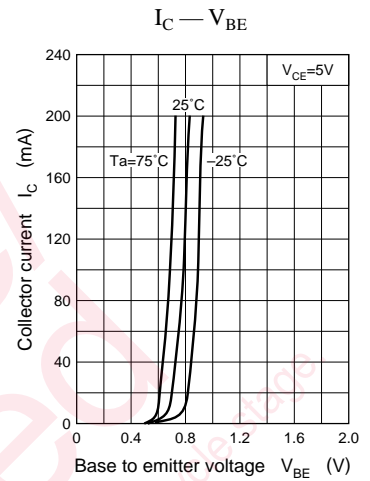
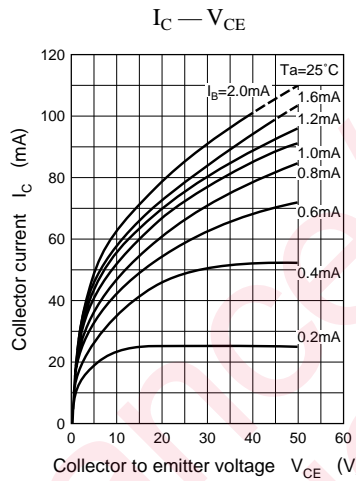
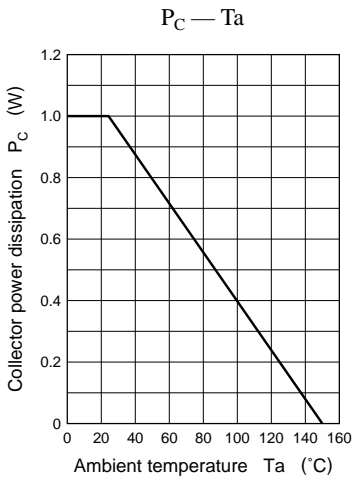
### Absolute Maximum Ratings ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	300	V
Collector to emitter voltage	$V_{CEO}$	300	V
Emitter to base voltage	$V_{EBO}$	7	V
Peak collector current	$I_{CP}$	200	mA
Collector current	$I_C$	100	mA
Collector power dissipation	$P_C$	1	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$



### Electrical Characteristics ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	$V_{CBO}$	$I_C = 10\mu\text{A}$ , $I_E = 0$	300			V
Collector to emitter voltage	$V_{CEO}$	$I_C = 100\mu\text{A}$ , $I_B = 0$	300			V
Emitter to base voltage	$V_{EBO}$	$I_E = 10\mu\text{A}$ , $I_C = 0$	7			V
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 50\text{V}$ , $I_C = 5\text{mA}$	50		250	
Base to emitter voltage	$V_{BE}$	$V_{CE} = 10\text{V}$ , $I_C = 30\text{mA}$			1.2	V
Collector to 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	$C_{ob}$	$V_{CB} = 30\text{V}$ , $I_E = 0$ , $f = 1\text{MHz}$		2.4		pF



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