

2SC3965

Silicon NPN triple diffusion planer type

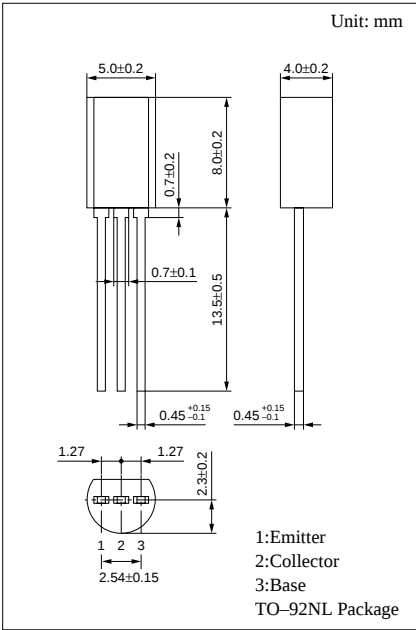
For small TV video output

■ Features

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

■ Absolute Maximum Ratings (Ta=25°C)

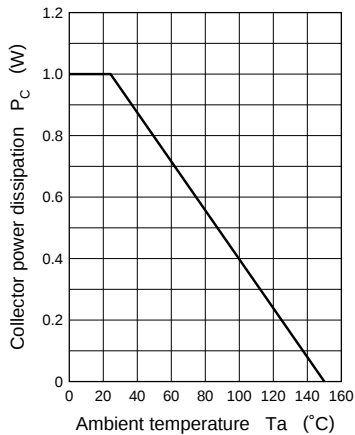
Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	300	V
Collector to emitter voltage	V_{CEO}	300	V
Emitter to base voltage	V_{EBO}	7	V
Peak collector current	I_{CP}	200	mA
Collector current	I_C	100	mA
Collector power dissipation	P_C	1	W
Junction temperature	T_j	150	°C
Storage temperature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



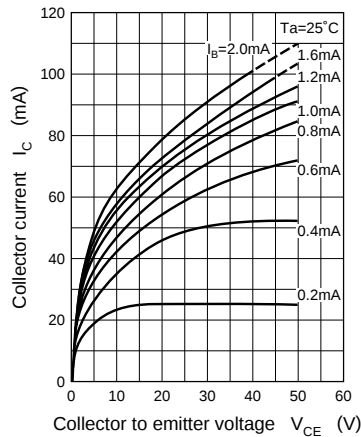
■ Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	$I_C = 10\mu A, I_E = 0$	300			V
Collector to emitter voltage	V_{CEO}	$I_C = 100\mu A, I_B = 0$	300			V
Emitter to base voltage	V_{EBO}	$I_E = 10\mu A, I_C = 0$	7			V
Forward current transfer ratio	h_{FE}	$V_{CE} = 50V, I_C = 5mA$	50		250	
Base to emitter voltage	V_{BE}	$V_{CE} = 10V, I_C = 30mA$			1.2	V
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 30mA, I_B = 3mA$			1.5	V
Transition frequency	f_T	$V_{CB} = 30V, I_E = -20mA, f = 200MHz$	70	140		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 30V, I_E = 0, f = 1MHz$		2.4		pF

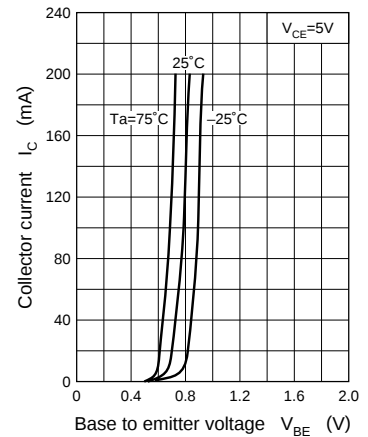
$P_C - T_a$



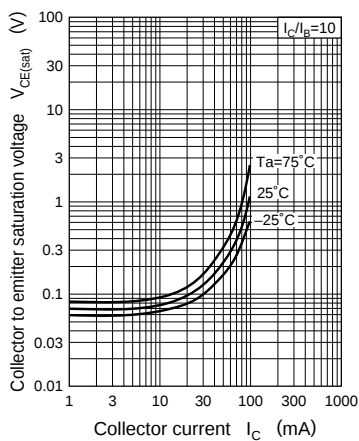
$I_C - V_{CE}$



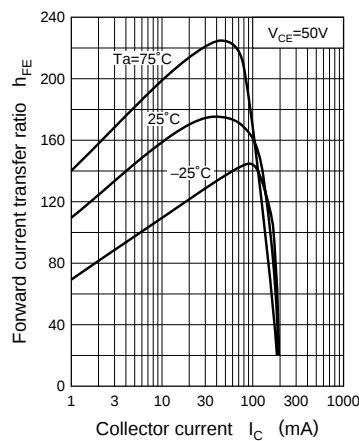
$I_C - V_{BE}$



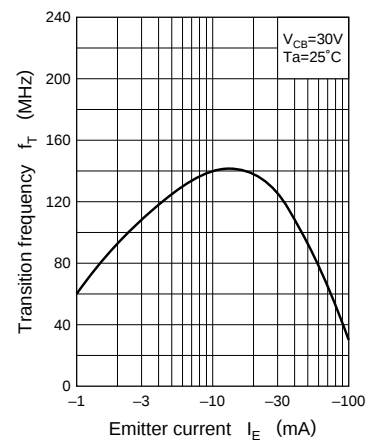
$V_{CE(sat)} - I_C$



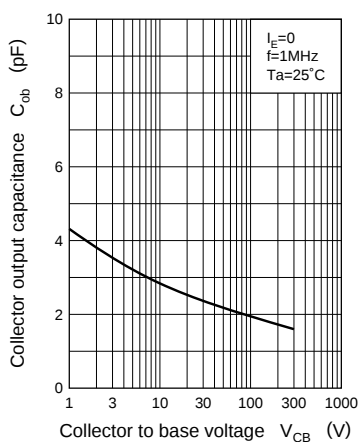
$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$



Area of safe operation (ASO)

