

2SC4985

Silicon NPN triple diffusion planar type

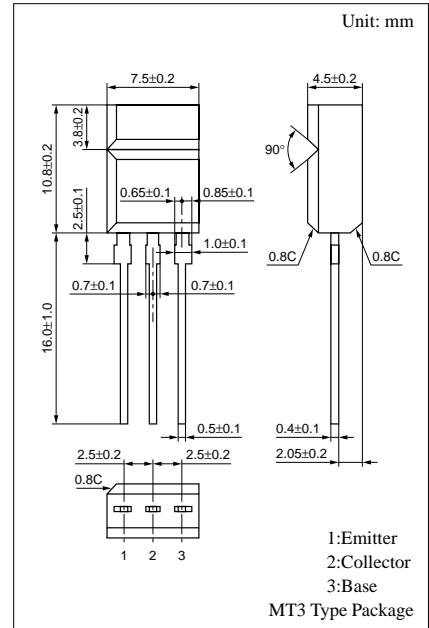
For high breakdown voltage high-speed switching

Features

- High collector to base voltage V_{CBO}
- High collector to emitter V_{CEO}
- Allowing automatic insertion with radial taping

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

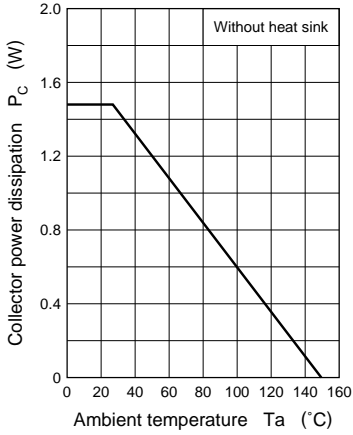
Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	900	V
Collector to emitter voltage	V_{CEO}	800	V
Emitter to base voltage	V_{EBO}	7	V
Peak collector current	I_{CP}	2	A
Collector current	I_C	1	A
Collector power dissipation	P_C	1.5	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



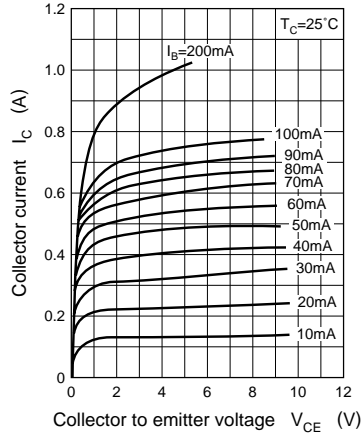
Electrical Characteristics ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 900\text{V}, I_E = 0$			50	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 7\text{V}, I_C = 0$			50	μA
Collector to emitter voltage	V_{CEO}	$I_C = 1\text{mA}, I_B = 0$	800			V
Forward current transfer ratio	h_{FE1}	$V_{CE} = 5\text{V}, I_C = 50\text{mA}$	6			
	h_{FE2}	$V_{CE} = 5\text{V}, I_C = 500\text{mA}$	3			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 200\text{mA}, I_B = 40\text{mA}$			1.5	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 200\text{mA}, I_B = 40\text{mA}$			1	V
Transition frequency	f_T	$V_{CB} = 10\text{V}, I_E = -50\text{mA}, f = 200\text{MHz}$		80		MHz
Turn-on time	t_{on}	$I_C = 200\text{mA}, I_{B1} = 40\text{mA}, I_{B2} = -80\text{mA}, V_{CC} = 250\text{V}$			1	μs
Storage time	t_{stg}				3	μs
Fall time	t_f				1	μs

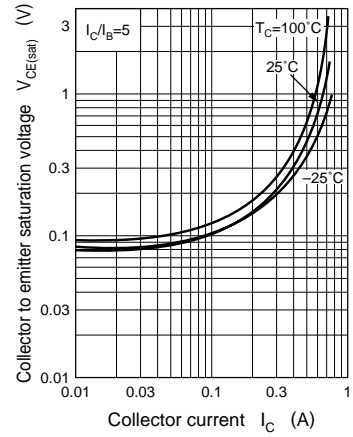
$P_C - T_a$



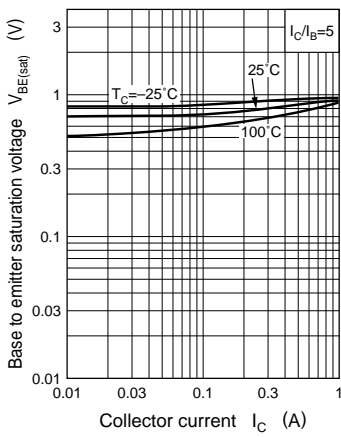
$I_C - V_{CE}$



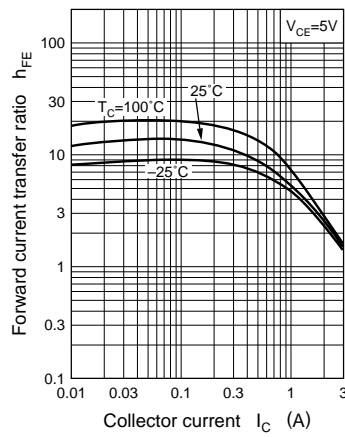
$V_{CE(sat)} - I_C$



$V_{BE(sat)} - I_C$



$h_{FE} - I_C$



$f_T - I_C$

