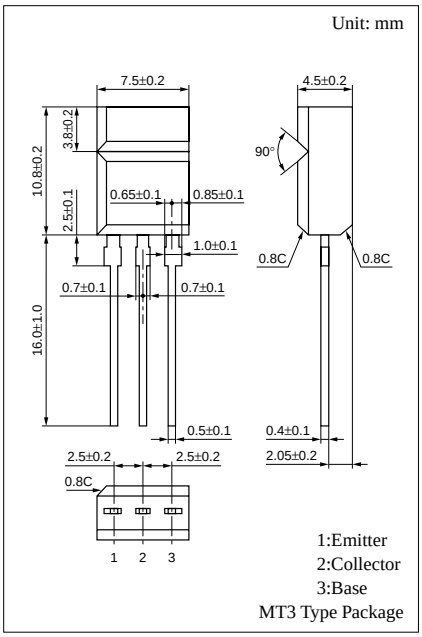
2SC4985

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

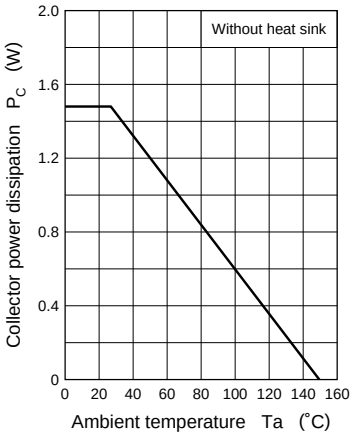
Absolute Maximum Ratings (Ta=25˚C)

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	˚C
Storage temperature	T_{stg}	–55 to +150	˚C

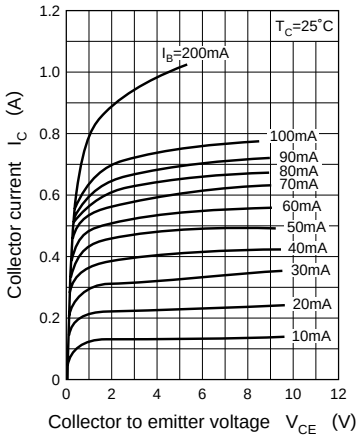
Electrical Characteristics (Ta=25˚C)

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

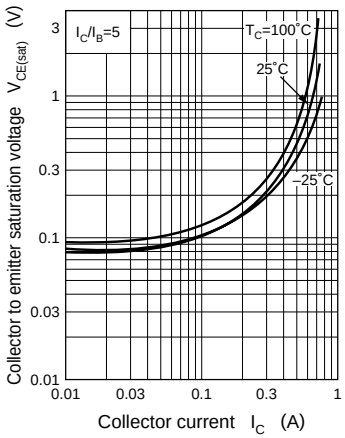
P_C — Ta



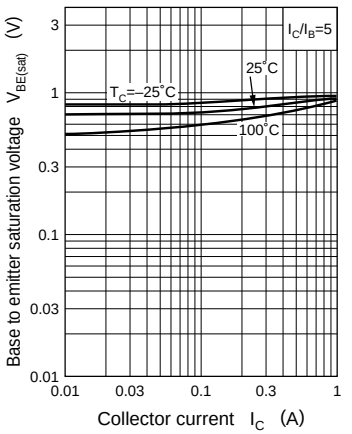
I_C — V_{CE}



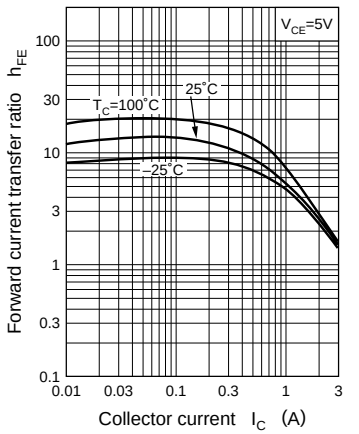
$V_{CE(sat)}$ — I_C



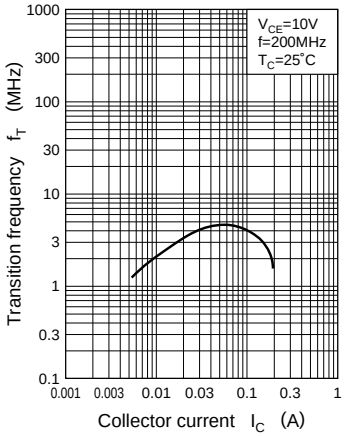
$V_{BE(sat)}$ — I_C



h_{FE} — I_C



f_T — I_C



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