

2SC5335(Tentative)

Silicon NPN epitaxial planer type

For low-frequency output amplification

Features

- High forward current transfer ratio h_{FE} .
- Low collector to emitter saturation voltage $V_{CE(sat)}$.

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	60	V
Collector to emitter voltage	V_{CEO}	50	V
Emitter to base voltage	V_{EBO}	15	V
Peak collector current	I_{CP}	1.5	A
Collector current	I_C	0.7	A
Collector power dissipation	P_C^{*1}	1.0	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C

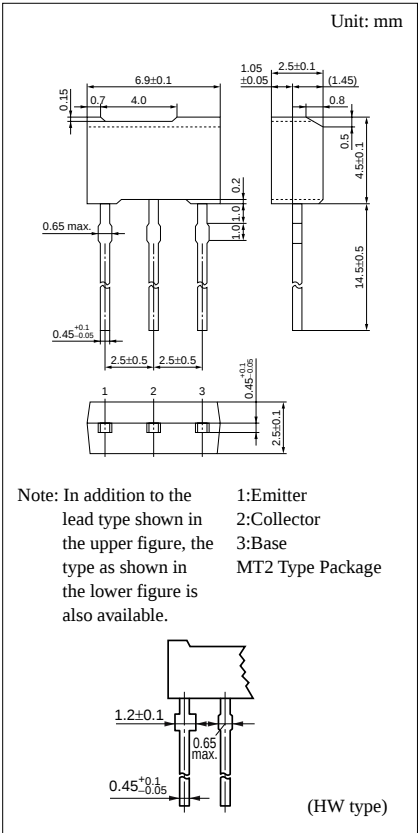
*1 Printed circuit board: Copper foil area of 1cm² or more, and the board thickness of 1.7mm for the collector portion

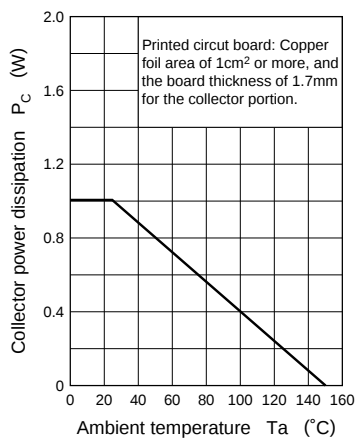
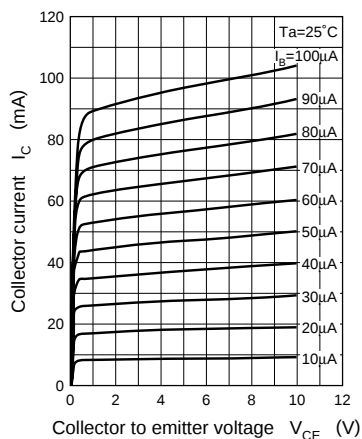
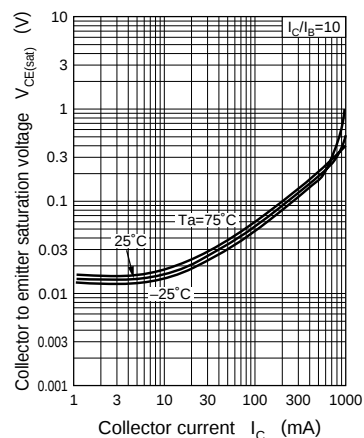
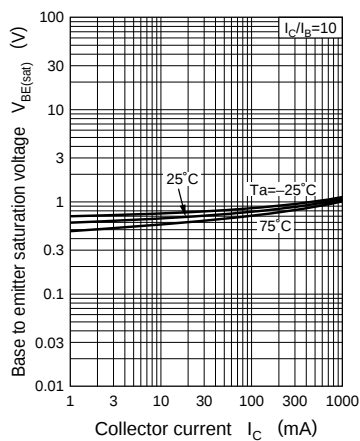
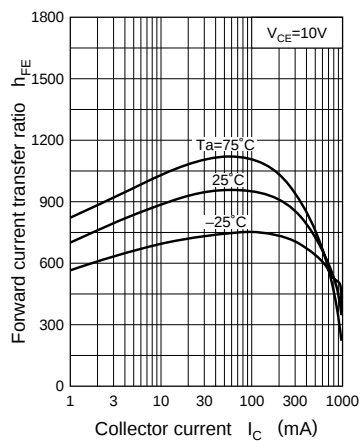
Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 20V, I_E = 0$			1	μA
	I_{CEO}	$V_{CE} = 20V, I_B = 0$			10	μA
Collector to base voltage	V_{CBO}	$I_C = 10\mu A, I_E = 0$	60			V
Collector to emitter voltage	V_{CEO}	$I_C = 1mA, I_B = 0$	50			V
Emitter to base voltage	V_{EBO}	$I_E = 10\mu A, I_C = 0$	15			V
Forward current transfer ratio	h_{FE}^{*1}	$V_{CE} = 10V, I_C = 150mA$	400		2000	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$		0.15	0.4	V
Transition frequency	f_T	$V_{CB} = 10V, I_E = -10mA, f = 200MHz$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$		11	15	pF

*1 h_{FE} Rank classification

Rank	R	S	T
h_{FE}	400 ~ 800	600 ~ 1200	1000 ~ 2000



$P_C - T_a$  $I_C - V_{CE}$  $V_{CE(\text{sat})} - I_C$  $V_{BE(\text{sat})} - I_C$  $h_{FE} - I_C$  $C_{ob} - V_{CB}$ 