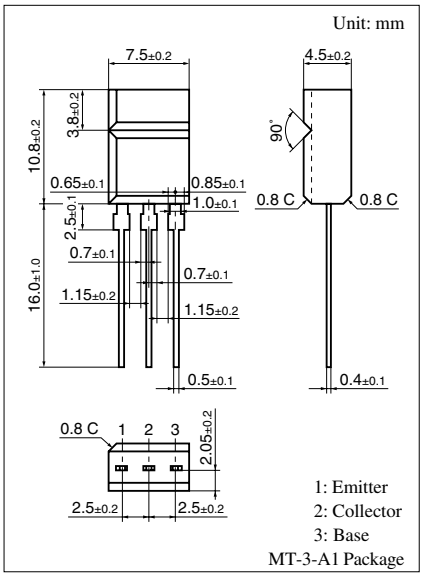
2SD2341

Silicon NPN triple diffusion planar type

For power amplification



■ Features

- Low collector to emitter saturation voltage $V_{CE(sat)}$
- High collector to emitter voltage V_{CEO}
- Allowing automatic insertion possible with radial taping

■ Absolute Maximum Ratings $T_C = 25°C$

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	200	V
Collector to emitter voltage	V_{CEO}	180	V
Emitter to base voltage	V_{EBO}	6	V
Peak collector current	I_{CP}	3	A
Collector current	I_C	2	A
Collector power dissipation	P_C	1.5	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

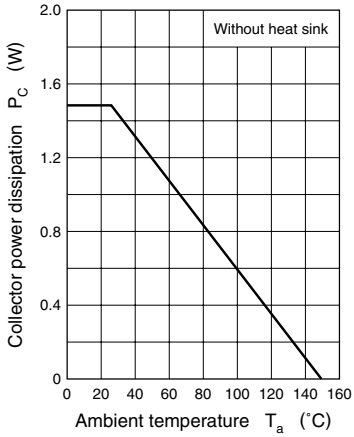
■ Electrical Characteristics $T_C = 25°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 200 V, I_E = 0			50	µA
Emitter cutoff current	I_{EBO}	V_{EB} = 4 V, I_C = 0			50	µA
Collector to base voltage	V_{CBO}	I_C = 500 µA, I_E = 0	200			V
Collector to emitter voltage	V_{CEO}	I_C = 5 mA, I_B = 0	180			V
Emitter to base voltage	V_{EBO}	I_E = 500 µA, I_C = 0	6			V
Forward current transfer ratio	h_{FE1} *	V_{CE} = 10 V, I_C = 150 mA	60		240	
	h_{FE2}	V_{CE} = 10 V, I_C = 400 mA	50			
Base to emitter voltage	V_{BE}	V_{CE} = 10 V, I_C = 400 mA		1		V
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 500 mA, I_B = 50 mA		1		V
Transition frequency	f_T	V_{CB} = 10 V, I_C = −100 mA, f = 200 MHz		150		MHz

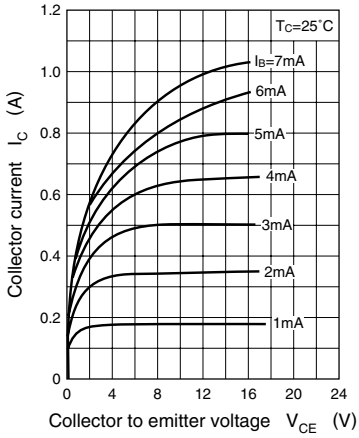
Note) ∗: Rank classification

Rank	R	S
h_{FE1}	60 to 140	100 to 240

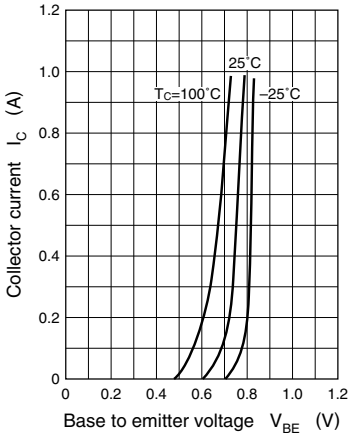
P_C — T_a



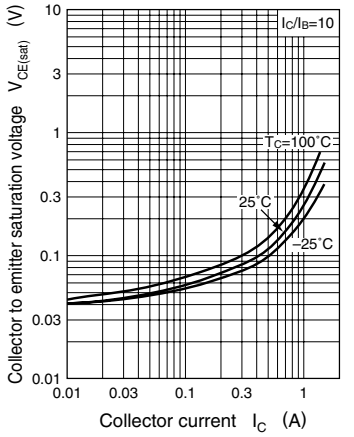
I_C — V_{CE}



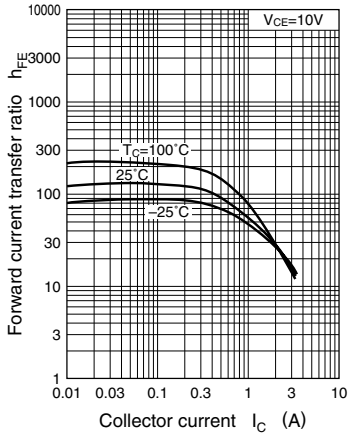
I_C — V_{BE}



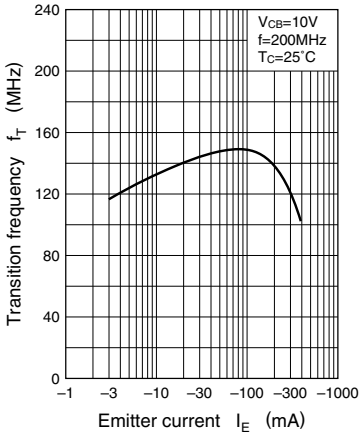
$V_{CE(sat)}$ — I_C



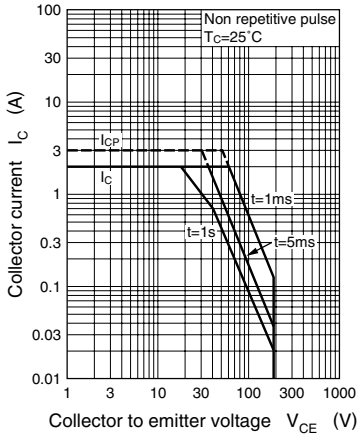
h_{FE} — I_C



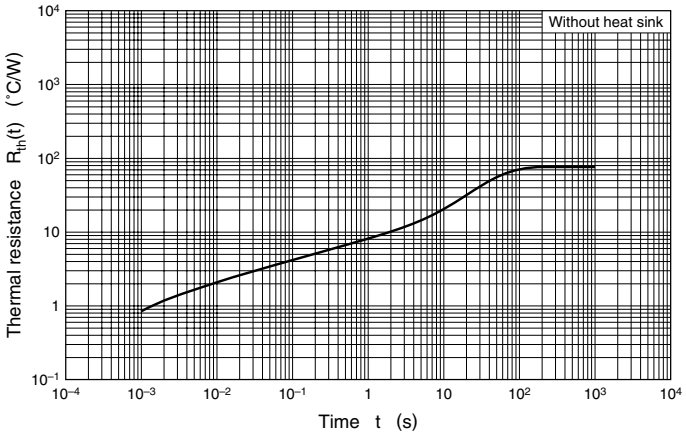
f_T — I_E



Area of safe operation (ASO)



$R_{th(t)}$ — t



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