

# 2SD2341

## Silicon NPN triple diffusion planar type

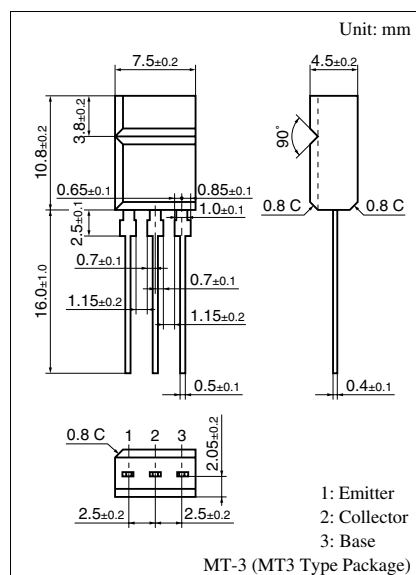
For power amplification

### ■ 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 $T_C = 25^\circ\text{C}$

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	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

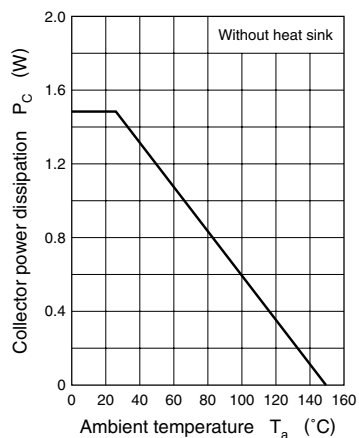
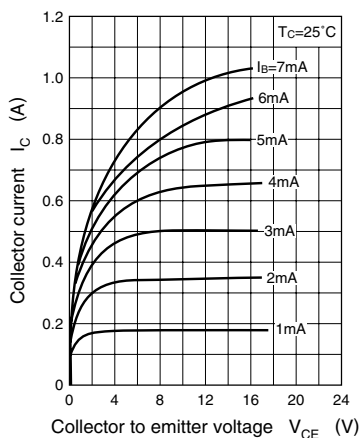
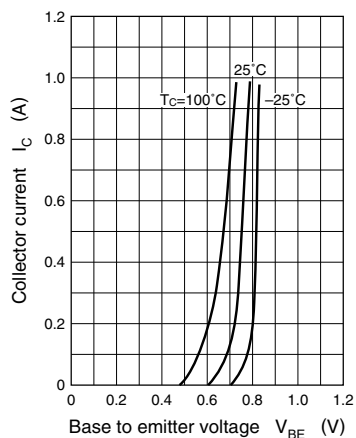
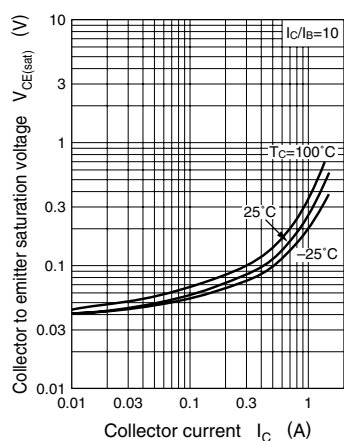
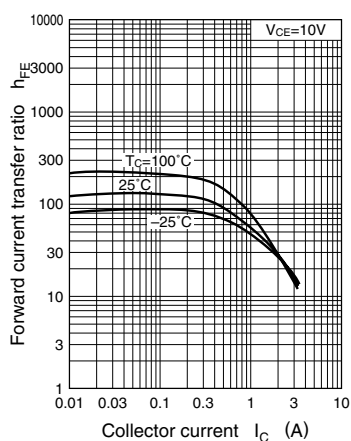
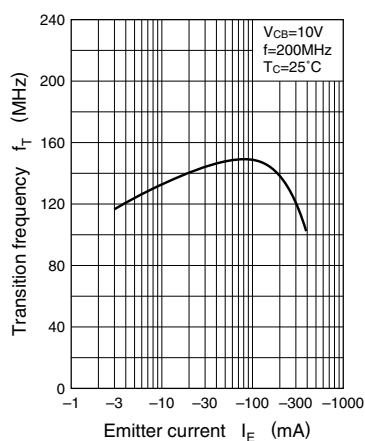


### ■ Electrical Characteristics $T_C = 25^\circ\text{C}$

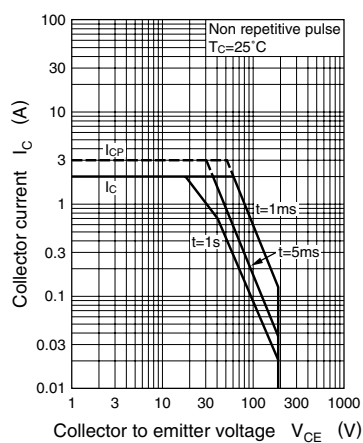
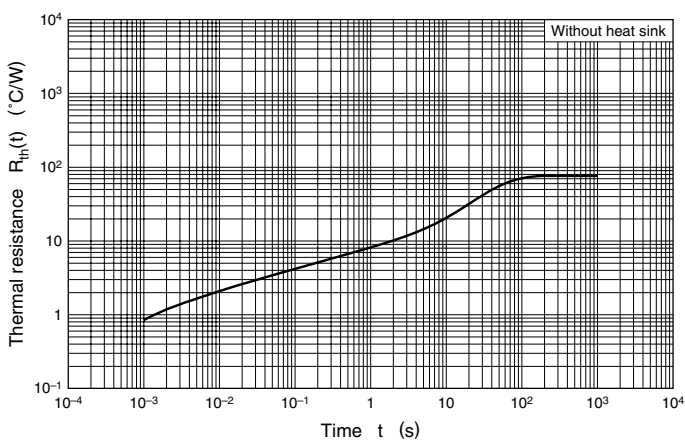
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 200\text{ V}, I_E = 0$			50	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 4\text{ V}, I_C = 0$			50	$\mu\text{A}$
Collector to base voltage	$V_{CBO}$	$I_C = 500\text{ }\mu\text{A}, I_E = 0$	200			V
Collector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