

2SD1741, 2SD1741A

Silicon NPN triple diffusion planar type

For power amplification

For TV vertical deflection output

Complementary to 2SB1171 and 2SB1171A

■ Features

- High forward current transfer ratio h_{FE} which has satisfactory linearity
- Low collector-emitter saturation voltage $V_{CE(sat)}$
- I type package enabling direct soldering of the radiating fin to the printed circuit board, etc. of small electronic equipment

■ Absolute Maximum Ratings $T_C = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	2SD1741 V_{CBO}	200	V
	2SD1741A	200	
Collector-emitter voltage (Base open)	2SD1741 V_{CEO}	150	V
	2SD1741A	180	
Emitter-base voltage (Collector open)	V_{EBO}	6	V
Collector current	I_C	2	A
Peak collector current	I_{CP}	3	A
Collector power dissipation	P_C	15	W
		$T_a = 25^\circ\text{C}$ 1.3	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

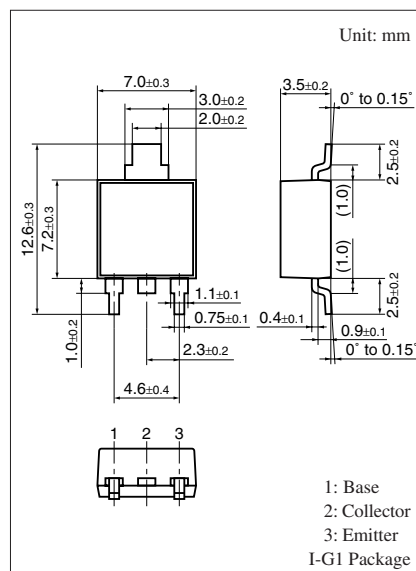
■ Electrical Characteristics $T_C = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = 50 \mu\text{A}$, $I_E = 0$	200			V
Collector-emitter voltage (Base open)	2SD1741 V_{CEO}	$I_C = 5 \text{ mA}$, $I_B = 0$	150			V
	2SD1741A		180			
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 500 \mu\text{A}$, $I_C = 0$	6			V
Base-emitter voltage	V_{BE}	$V_{CE} = 10 \text{ V}$, $I_C = 400 \text{ mA}$			1.0	V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 200 \text{ V}$, $I_E = 0$			50	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 4 \text{ V}$, $I_C = 0$			50	μA
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			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$			1.0	V
Transition frequency	f_T	$V_{CE} = 10 \text{ V}$, $I_C = 0.5 \text{ A}$, $f = 1 \text{ MHz}$		20		MHz

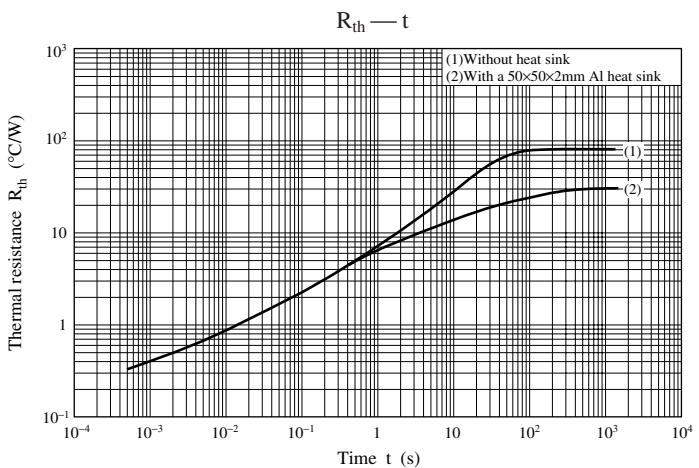
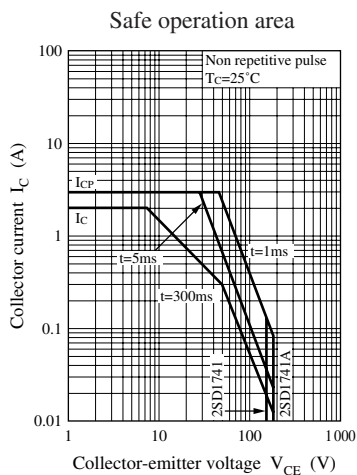
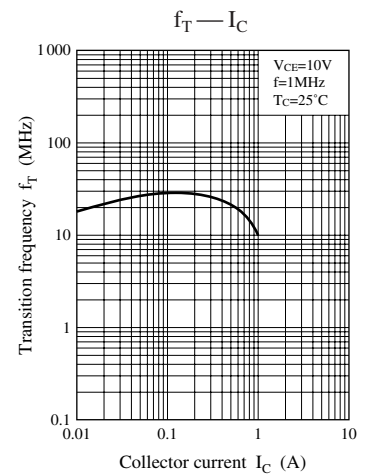
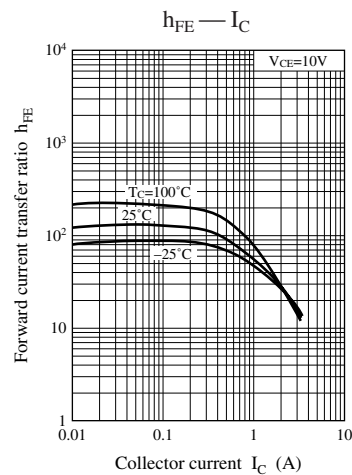
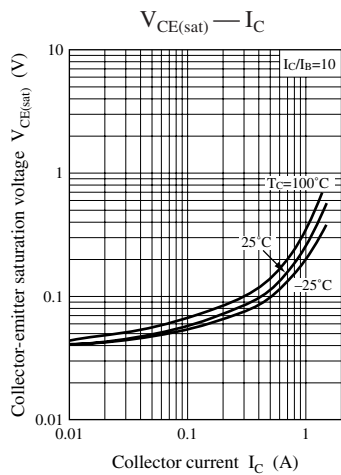
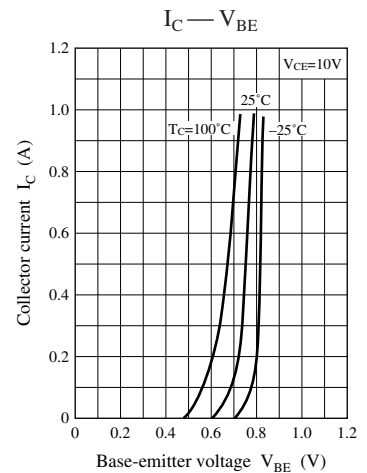
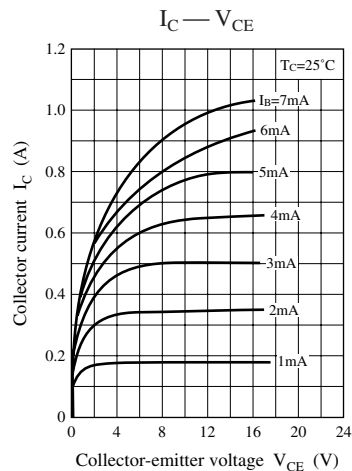
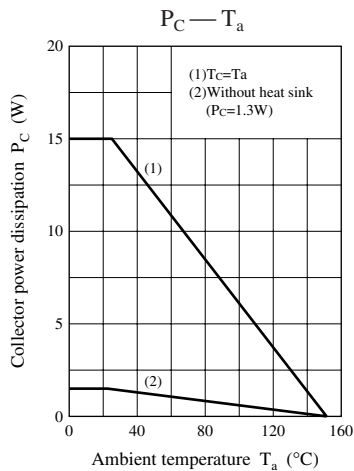
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Rank classification

Rank	Q	P
h_{FE1}	60 to 140	100 to 240



Note) Self-supported type package is also prepared.



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