

2SD1772, 2SD1772A

Silicon NPN triple diffusion planar type

For power amplification

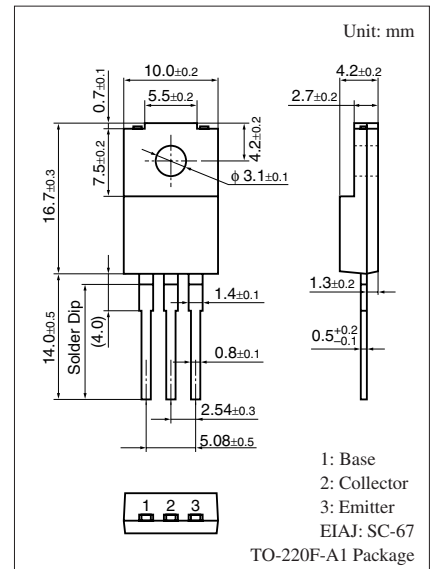
For TV vertical deflection output

■ Features

- Large collector power dissipation P_C
- Full-pack package which can be installed to the heat sink with one screw

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V_{CBO}	200	V	
Collector-emitter voltage (Base open)	2SD1772	V_{CEO}	150	V
	2SD1772A		180	
Emitter-base voltage (Collector open)	V_{EBO}	6	V	
Collector current	I_C	1	A	
Peak collector current	I_{CP}	2	A	
Collector power dissipation	P_C		25	W
		$T_a = 25^\circ\text{C}$	2.0	
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$	



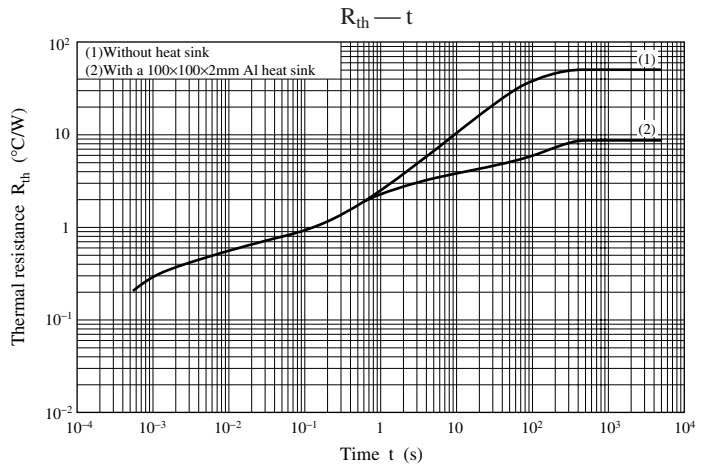
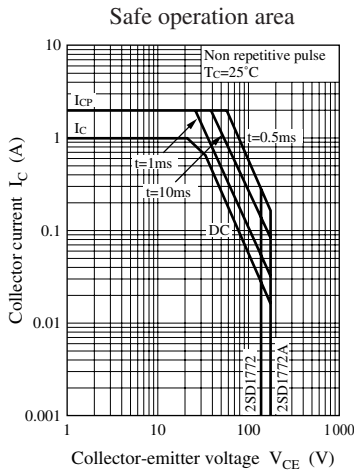
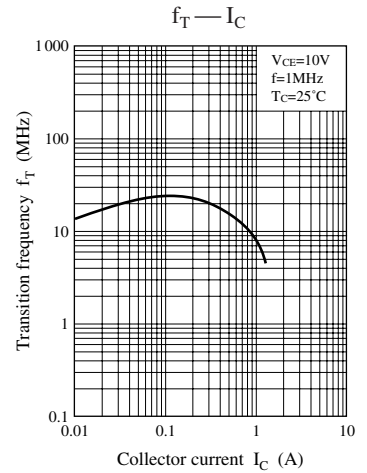
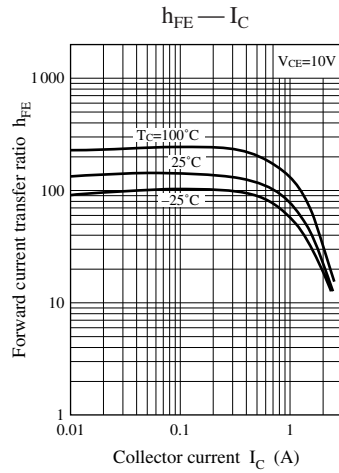
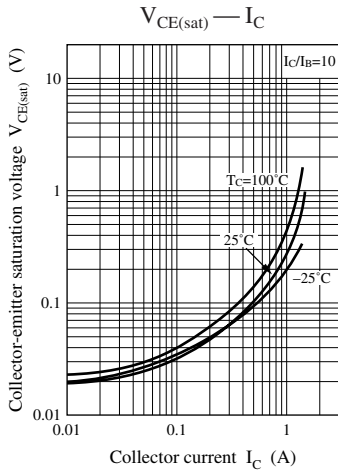
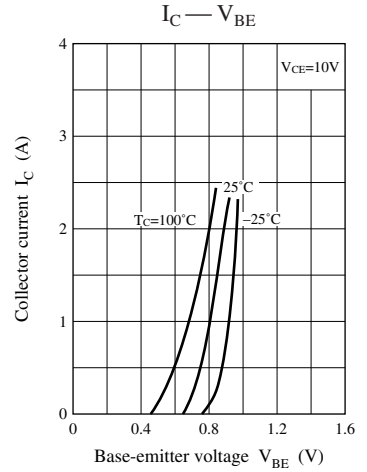
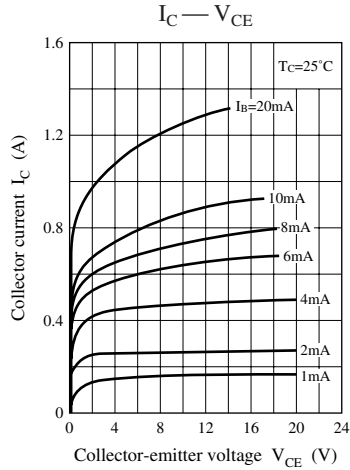
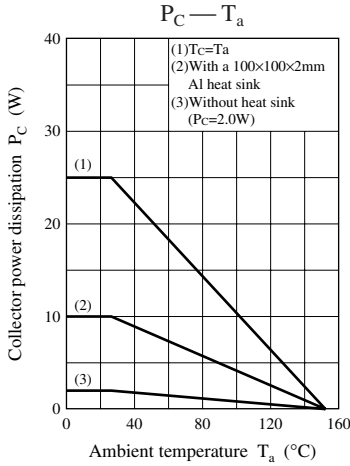
■ Electrical Characteristics $T_C = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 5\text{ mA}, I_B = 0$	150			V
			180			
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 0.5\text{ mA}, I_C = 0$	6			V
Base-emitter voltage	V_{BE}	$V_{CE} = 10\text{ V}, I_C = 300\text{ mA}$			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}^*	$V_{CE} = 10\text{ V}, I_C = 100\text{ mA}$	60		240	—
	h_{FE2}	$V_{CE} = 10\text{ V}, I_C = 300\text{ mA}$	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	$V_{CE} = 10\text{ V}, I_C = 0.1\text{ A}, f = 1\text{ MHz}$		20		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$		27		pF

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



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