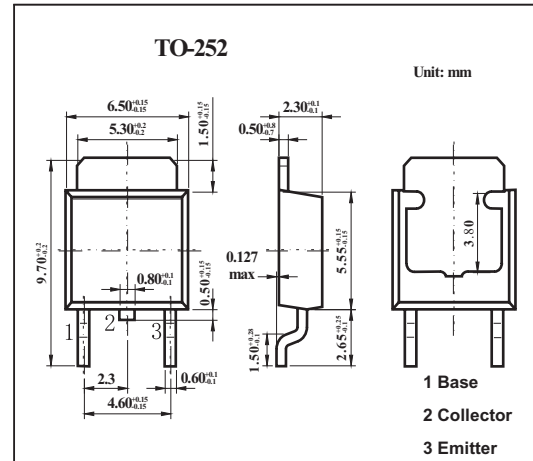


Silicon NPN Triple Diffusion Planar Type

2SD1250

■ Features

- High forward current transfer ratio h_{FE} which has satisfactory linearity
- Low collector-emitter saturation voltage $V_{CE(sat)}$

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

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

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = 500 \mu\text{A}, I_E = 0$	200			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 5 \text{ mA}, I_B = 0$	150			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 500 \mu\text{A}, I_C = 0$	6			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_{FE}	$V_{CE} = 10 \text{ V}, I_C = 150 \text{ mA}$	60		240	
		$V_{CE} = 10 \text{ V}, I_C = 400 \text{ mA}$	50			
Base-emitter voltage	V_{BE}	$V_{CE} = 10 \text{ V}, I_C = 400 \text{ mA}$			1.0	V
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

■ h_{FE} Classification

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