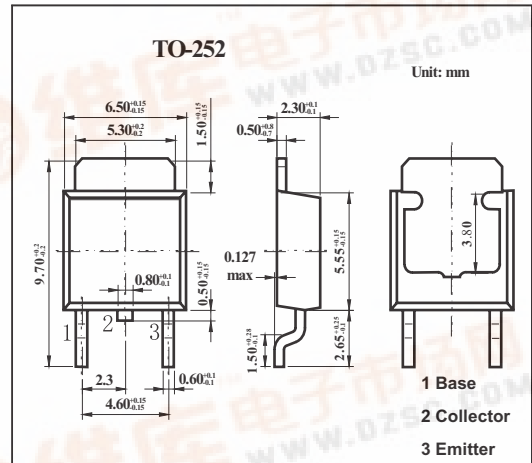


SMD Type Transistors

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 $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	200	V
Collector-emitter voltage	V_{CE0}	150	V
Emitter-base voltage	V_{EB0}	6	V
Collector current	I_c	2	A
Peak collector current	I_{CP}	3	
Collector power dissipation	P_c	1.3	W
$T_c = 25^\circ C$		30	W
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CB0}	$I_c = 500 \mu A, I_E = 0$	200			V
Collector-emitter voltage (Base open)	V_{CE0}	$I_c = 5 \text{ mA}, I_B = 0$	150			V
Emitter-base voltage (Collector open)	V_{EB0}	$I_E = 500 \mu A, I_c = 0$	6			V
Collector-base cutoff current (Emitter open)	I_{CB0}	$V_{CB} = 200 \text{ V}, I_E = 0$			50	μA
Emitter-base cutoff current (Collector open)	I_{EB0}	$V_{EB} = 4 \text{ V}, I_c = 0$			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

