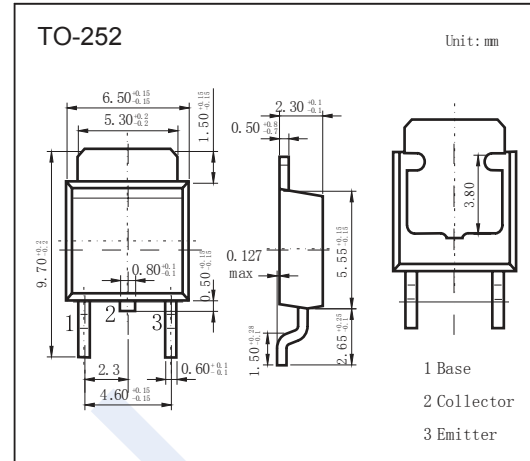


## NPN Transistors

### 2SD1250

#### ■ Features

- High forward current transfer ratio  $h_{FE}$  which has satisfactory linearity
- Low collector to emitter saturation voltage  $V_{CE(sat)}$
- Complementary to 2SB928



#### ■ 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		
Emitter - Base Voltage	$V_{EBO}$	6		
Collector Current - Continuous	$I_C$	2	A	
Collector Current - Pulse	$I_{CP}$	3		
Collector Power Dissipation	$P_C$	$T_c = 25^\circ\text{C}$	30	W
		$T_a = 25^\circ\text{C}$	1.3	
Junction Temperature	$T_J$	150	$^\circ\text{C}$	
Storage Temperature Range	$T_{stg}$	-55 to 150		

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{CBO}$	$I_C = 500 \mu\text{A}$ , $I_E = 0$	200			V
Collector-emitter breakdown voltage	$V_{CEO}$	$I_C = 5 \text{ mA}$ , $I_B = 0$	150			
Emitter-base breakdown voltage	$V_{EBO}$	$I_E = 500 \mu\text{A}$ , $I_C = 0$	6			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = 200 \text{ V}$ , $I_E = 0$			50	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5 \text{ V}$ , $I_C = 0$			50	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500 \text{ mA}$ , $I_B = 50 \text{ mA}$			1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 \text{ mA}$ , $I_B = 50 \text{ mA}$			1.2	
Base-emitter voltage	$V_{BE}$	$V_{CE} = 10 \text{ V}$ , $I_C = 400 \text{ mA}$			1	
DC current gain	$h_{FE(1)}$	$V_{CE} = 10 \text{ V}$ , $I_C = 150 \text{ mA}$	60		240	
	$h_{FE(2)}$	$V_{CE} = 10 \text{ V}$ , $I_C = 400 \text{ mA}$	50			
Transition frequency	$f_T$	$V_{CE} = 10 \text{ V}$ , $I_C = 500 \text{ mA}$ , $f = 1 \text{ MHz}$		20		MHz

#### ■ Classification of $h_{FE(1)}$

Type	2SD1250-Q	2SD1250-P
Range	60-140	100-240

## NPN Transistors 2SD1250

■ Typical Characteristics

