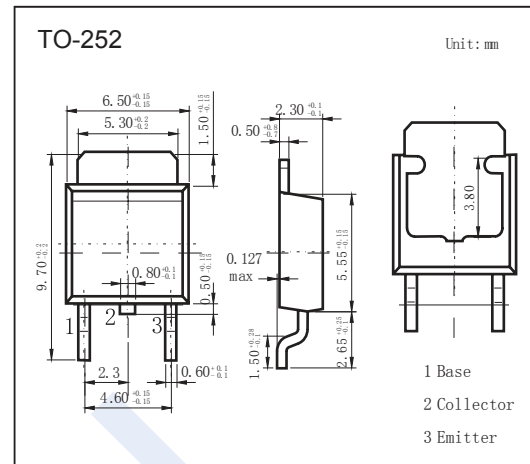


NPN Transistors

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	μA
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

