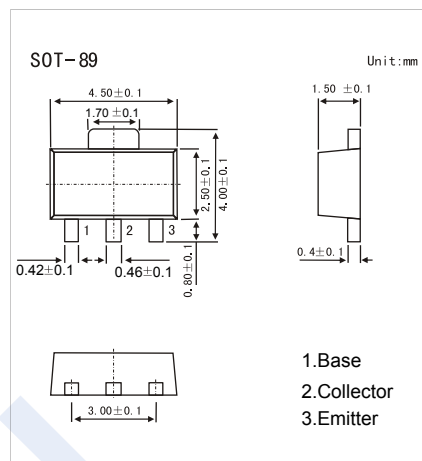


NPN Transistors

2SD875

■ Features

- Large collector power dissipation P_c .
- High collector to emitter voltage V_{CEO} .
- Complimentary to 2SB767

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	80	V
Collector - Emitter Voltage	V_{CEO}	80	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	0.5	A
Collector Current - Pulse	I_{CP}	1	
Collector Power Dissipation	P_C	1	W
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}	$I_C = 100 \mu\text{A}, I_E = 0$	80			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 \text{ mA}, I_B = 0$	80			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu\text{A}, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 60\text{V}, I_E = 0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4\text{V}, I_C = 0$			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 300 \text{ mA}, I_B = 30 \text{ mA}$		0.2	0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 300 \text{ mA}, I_B = 30 \text{ mA}$		0.85	1.2	
DC current gain	$h_{FE(1)}$	$V_{CE} = 10\text{V}, I_C = 150 \text{ mA}$	130		330	
	$h_{FE(2)}$	$V_{CE} = 5\text{V}, I_C = 500 \text{ mA}$	50	100		
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$		11		pF
Transition frequency	f_T	$V_{CE} = 10\text{V}, I_E = -50 \text{ mA}, f = 200\text{MHz}$		120		MHz

■ Classification of $h_{FE(1)}$

Type	2SD875-R	2SD875-S
Range	130-220	185-330
Marking	XR	XS

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2SD875

■ Typical Characteristics

