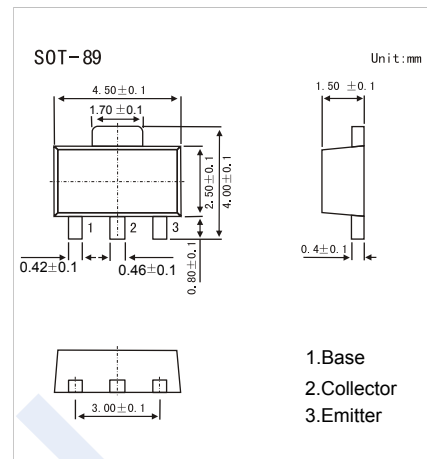


NPN Transistors

2SD874A

■ Features

- Large collector power dissipation P_c
- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Complimentary to 2SB766A

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	60	V
Collector - Emitter Voltage	V_{CEO}	50	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_c	1	A
Collector Power Dissipation	P_c	500	mW
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}	$I_c = 100 \mu\text{A}, I_E = 0$	60			V
Collector- emitter breakdown voltage	V_{CEO}	$I_c = 2 \text{ mA}, I_B = 0$	50			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu\text{A}, I_c = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 50 \text{ V}, I_E = 0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4 \text{ V}, I_c = 0$			100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 500 \text{ mA}, I_B = 50 \text{ mA}$			0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 500 \text{ mA}, I_B = 50 \text{ mA}$			1.2	
DC current gain	$h_{FE(1)}$	$V_{CE} = 10 \text{ V}, I_c = 500 \text{ mA}$	85		340	
	$h_{FE(2)}$	$V_{CE} = 5 \text{ V}, I_c = 1 \text{ A}$	50			
Collector output capacitance	C_{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		20		pF
Transition frequency	f_T	$V_{CE} = 10 \text{ V}, I_c = 50 \text{ mA}, f = 200 \text{ MHz}$		200		MHz

■ Classification of $h_{FE(1)}$

Type	2SD874A-Q	2SD874A-R	2SD874A-S
Range	85-170	120-240	170-340
Marking	YQ	YR	YS

NPN Transistors

2SD874A

■ Typical Characteristics

