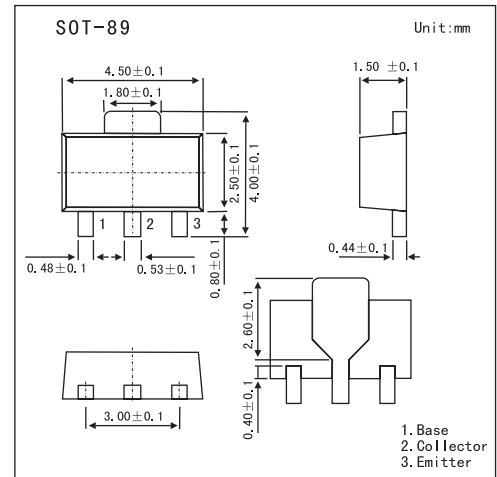


# 2SD874, 2SD874A

## ■ Features

- Large collector power dissipation  $P_C$ .
- Low collector-emitter saturation voltage  $V_{CE(sat)}$ .
- Mini power type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.



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

Parameter	Symbol	Rating	Unit	
Collector-base voltage	$V_{CB0}$	2SD874	30	V
		2SD874A	60	V
Collector-emitter voltage	$V_{CE0}$	2SD874	25	V
		2SD874A	50	V
Emitter-base voltage	$V_{EB0}$	5	V	
Collector current	$I_C$	1	A	
Peak collector current	$I_{CP}$	1.5	A	
Collector power dissipation	$P_C$	1	W	
Junction temperature	$T_J$	150	$^\circ\text{C}$	
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$	

## 2SD874, 2SD874A

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base voltage	2SD874	$I_C = 10 \mu A, I_E = 0$	30			V
	2SD874A		60			V
Collector-emitter voltage	2SD874	$I_C = 2 \text{ mA}, I_B = 0$	25			V
	2SD874A		50			V
Emitter-base voltage	$V_{EBO}$	$I_E = 10 \mu A, I_C = 0$	5			V
Collector-base cutoff current	$I_{CBO}$	$V_{CB} = 20 \text{ V}, I_B = 0$			0.1	$\mu A$
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 10 \text{ V}, I_C = 500 \text{ mA}$	85		340	?
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$		0.2	0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$		0.85	1.2	V
Transition frequency	$f_T$	$V_{CB} = 10 \text{ V}, I_E = -50 \text{ mA}, f = 200 \text{ MHz}$		200		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$			20	pF

### ■ hFE Classification

Marking	2SD874:Z, 2SD874A:Y		
Rank	Q	R	S
hFE	85~170	120~240	170~340