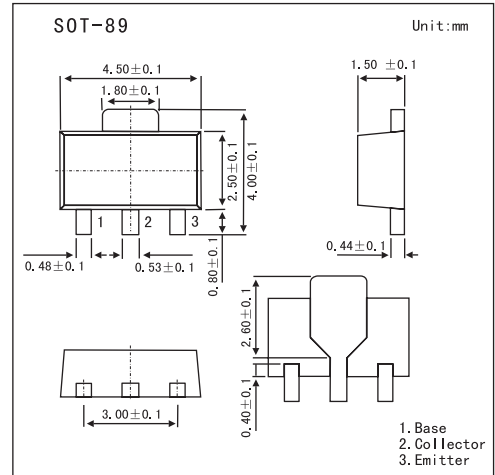


# 2SD874, 2SD874A

## ■ 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	2SD874	$V_{CB0}$	30	V
	2SD874A		60	V
Collector-emitter voltage	2SD874	$V_{CE0}$	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	Ic = 10 μA, I <sub>E</sub> = 0	30			V
	2SD874A		60			V
Collector-emitter voltage	2SD874	Ic = 2 mA, I <sub>B</sub> = 0	25			V
	2SD874A		50			V
Emitter-base voltage	V <sub>EBO</sub>	I <sub>E</sub> = 10μA, I <sub>C</sub> = 0	5			V
Collector-base cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = 20 V, I <sub>B</sub> = 0			0.1	μA
Forward current transfer ratio	h <sub>FE</sub>	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 500 mA	85		340	?
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA		0.2	0.4	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA		0.85	1.2	V
Transition frequency	f <sub>T</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = -50 mA, f = 200 MHz		200		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1 MHz			20	pF

## ■ hFE Classification

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