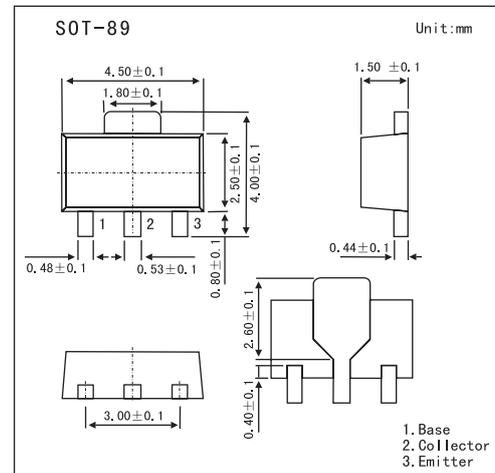


Silicon NPN Epitaxial Planar Type

2SD874,2SD874A

■ Features

- Large collector power dissipation P_C .
- Low collector-emitter saturation voltage $V_{CE(sat)}$.

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

Parameter		Symbol	Rating	Unit
Collector-base voltage	2SD874	V_{CBO}	30	V
	2SD874A		60	V
Collector-emitter voltage	2SD874	V_{CEO}	25	V
	2SD874A		50	V
Emitter-base voltage		V_{EBO}	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	$^\circ\text{C}$

* Printed circuit board: Copper foil area of 1 cm^2 or more, and the board thickness of 1.7 mm for the collector portion

2SD874,2SD874A

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base voltage	2SD874	V _{CB0} I _c = 10 μA, I _E = 0	30			V
	2SD874A		60			V
Collector-emitter voltage	2SD874	V _{CE0} I _c = 2 mA, I _B = 0	25			V
	2SD874A		50			V
Emitter-base voltage	V _{EB0}	I _E = 10μA, I _c = 0	5			V
Collector-base cutoff current	I _{CB0}	V _{CB} = 20 V, I _B = 0			0.1	μ A
DC current gain	h _{FE}	V _{CE} = 10 V, I _c = 500 mA	85		340	
		V _{CE} = 10 V, I _c = 1A	50			
Collector-emitter saturation voltage	V _{CE(sat)}	I _c = 500 mA, I _B = 50 mA		0.2	0.4	V
Base-emitter saturation voltage	V _{BE(sat)}	I _c = 500 mA, I _B = 50 mA		0.85	1.2	V
Collector output capacitance	C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz			20	pF
Transition frequency	f _T	V _{CB} = 10 V, I _E = -50 mA, f = 200 MHz		200		MHz

■ hFE Classification

Marking	2SD874	ZQ	ZR	ZS
	2SD874A	YQ	YR	YS
Rank		Q	R	S
hFE		85~170	120~240	170~340