2SD0874, 2SD0874A (2SD874, 2SD874A)

Silicon NPN epitaxial planar type

For low-frequency power amplification Complementary to 2SB0766 (2SB766) and 2SB0766A (2SB766A)

■ Features

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

■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit	
Collector-base voltage	2SD0874	V_{CBO}	30	V
(Emitter open)	2SD0874A		60	
Collector-emitter voltage	2SD0874	V _{CEO}	25	V
(Base open)	2SD0874A		50	
Emitter-base voltage (Col	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	°C	
Storage temperature	T_{stg}	-55 to +150	°C	

Note) *: Printed circuit board: Copper foil area of 1 cm² or more, and the board thickness of 1.7 mm for the collector portion

Unit: mm 4.5±0.1 1.6±0.2 1.5±0.0 1.5±0.0 1.5±0.0 1.5±0.0 1.5±0.1 1.

Marking Symbol:

2SD0874: Z2SD0874A: Y

■ Electrical Characteristics $T_a = 25$ °C ± 3 °C

Parameter		Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage	2SD0874	V _{CBO}	$I_C = 10 \mu\text{A}, I_E = 0$	30			V
(Emitter open)	2SD0874A			60			
Collector-emitter voltage	2SD0874	V _{CEO}	$I_C = 2 \text{ mA}, I_B = 0$	25			V
(Base open)	2SD0874A			50			
Emitter-base voltage (Collector open)		V_{EBO}	$I_E = 10 \ \mu A, I_C = 0$	5			V
Collector-base cutoff current (Emitter open)		I_{CBO}	$V_{CB} = 20 \text{ V}, I_{E} = 0$			0.1	μΑ
Forward current transfer ratio *1		h _{FE1} *2	$V_{CE} = 10 \text{ V}, I_{C} = 500 \text{ mA}$	85		340	_
		h _{FE2}	$V_{CE} = 5 \text{ V}, I_{C} = 1 \text{ A}$	50			
Collector-emitter saturation voltage *1		V _{CE(sat)}	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$		0.2	0.4	V
Base-emitter saturation voltage *1		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
(Common base, input open circuited)							

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

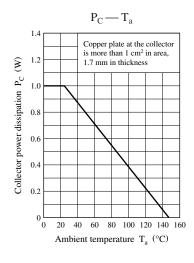
2. *1: Pulse measurement

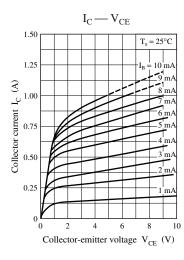
*2: Rank classification

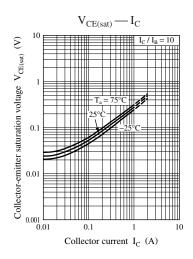
Rank	Q	R	S	
$h_{\rm FE1}$	85 to 170	120 to 240	170 to 340	

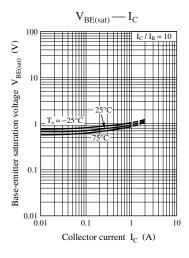
Note) The part numbers in the parenthesis show conventional part number.

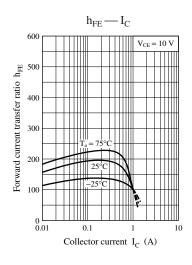
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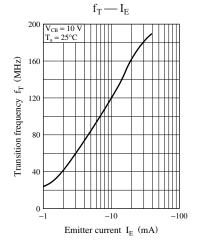


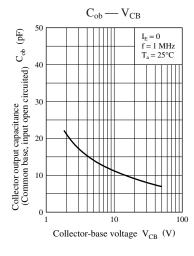


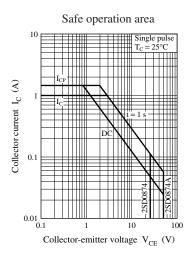












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