

# 2SD0966 (2SD966)

## Silicon NPN epitaxial planar type

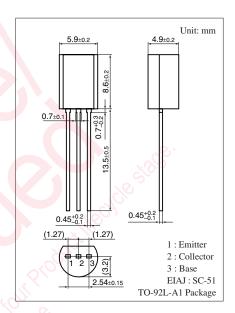
For low-frequency amplification For stroboscope

#### ■ Features

- Low collector-emitter saturation voltage V<sub>CE(sat)</sub>
- Satisfactory operation performances at high efficiency with the lowvoltage power supply.

### ■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	$V_{CBO}$	40	V	
Collector-emitter voltage (Base open)	$V_{CEO}$	20	V	
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	7	V	
Collector current	$I_{C}$	5	A	
Peak collector current	$I_{CP}$	8	A	
Collector power dissipation	P <sub>C</sub>	1	W	
Junction temperature	$T_{j}$	150	°C	
Storage temperature	T <sub>stg</sub>	-55 to +150	°CO	



### ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_C = 1 \text{ mA}, I_B = 0$	20	55		V
Emitter-base voltage (Collector open)	$V_{\rm EBO}$	$I_E = 10 \mu\text{A},  I_C = 0$	70			V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = 10 \text{ V}, I_{E} = 0$	7.7		0.1	μΑ
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = 7 \text{ V}, I_{C} = 0$			0.1	μΑ
Forward current transfer ratio *1	h <sub>FE1</sub> *2	$V_{CE} = 2 \text{ V}, I_{C} = 0.5 \text{ A}$	180		600	_
	h <sub>FE</sub>	$V_{CE} = 2 \text{ V}, I_{C} = 2 \text{ A}$	150			
Collector-emitter saturation voltage *1	V <sub>CE(sat)</sub>	$I_C = 3 \text{ A}, I_B = 0.1 \text{ A}$			1	V
Transition frequency	$f_T$	$V_{CB} = 6 \text{ V}, I_E = -50 \text{ mA}, f = 200 \text{ MHz}$		150		MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB} = 20 \text{ V}, I_E = 0, f = 1 \text{ MHz}$			50	pF
(Common base, input open circuited)		X.				

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

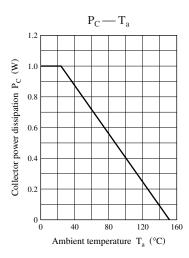
2. \*1: Pulse measurement

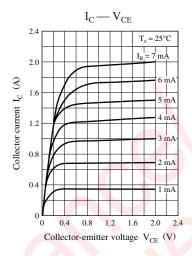
#### \*2: Rank classification

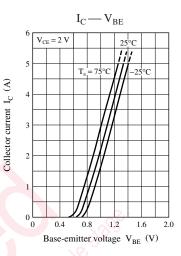
Rank	Р	Q	R
$h_{FE1}$	180 to 270	230 to 380	340 to 600

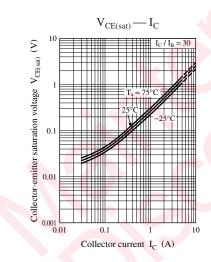
Note) The part number in the parenthesis shows conventional part number.

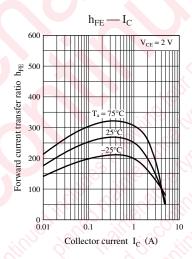
## **Panasonic**

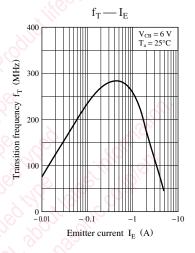


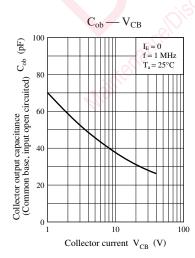












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