# 2SC1383, 2SC1384

### Silicon NPN epitaxial planar type

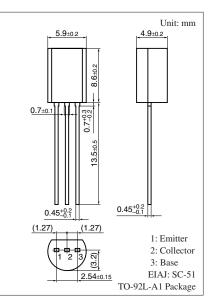
For low-frequency power amplification and driver amplification Complementary to 2SA0683, 2SA0684

#### Features

- $\bullet$  Low collector-emitter saturation voltage  $V_{CE(sat)}$
- Complementary pair with 2SA0683, 2SA0684

Parameter	Symbol	Rating	Unit		
Collector-base voltage	2SC1383	V <sub>CBO</sub>	30	V	
(Emitter open)	2SC1384		60		
Collector-emitter voltage	2SC1383	V <sub>CEO</sub>	25	V	
(Base open)	2SC1384		50		
Emitter-base voltage (Col	V <sub>EBO</sub>	5	V		
Collector current	I <sub>C</sub>	1	А		
Peak collector current	I <sub>CP</sub>	1.5	А		
Collector power dissipatio	P <sub>C</sub>	1	W		
Junction temperature	Tj	150	°C		
Storage temperature	T <sub>stg</sub>	-55 to +150	°C		

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



#### Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

Parameter		Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage	2SC1383	V <sub>CBO</sub>	$I_{C} = 10 \ \mu A, \ I_{E} = 0$	30			V
(Emitter open)	2SC1384			60			
Collector-emitter voltage	2SC1383	V <sub>CEO</sub>	$I_{\rm C} = 2 \text{ mA}, I_{\rm B} = 0$	25			V
(Base open)	2SC1384			50			
Emitter-base voltage (Collector open)		V <sub>EBO</sub>	$I_E = 10 \ \mu A, \ I_C = 0$	5			V
Collector-base cutoff current (Emitter open)		I <sub>CBO</sub>	$V_{CB} = 20 \text{ V}, I_E = 0$			0.1	μΑ
Forward current transfer ratio *1		h <sub>FE1</sub> *2	$V_{CE} = 10 \text{ V}, I_C = 500 \text{ mA}$	85		340	_
		h <sub>FE2</sub>	$V_{CE} = 5 V, I_C = 1 A$	50			_
Collector-emitter saturation voltage		V <sub>CE(sat)</sub>	$I_{\rm C} = 500 \text{ mA}, I_{\rm B} = 50 \text{ mA}$		0.2	0.4	V
Base-emitter saturation voltage		V <sub>BE(sat)</sub>	$I_{\rm C} = 500 \text{ mA}, I_{\rm B} = 50 \text{ mA}$		0.85	1.20	V
Transition frequency		f <sub>T</sub>	$V_{CB} = 10 \text{ V}, I_E = -50 \text{ mA}, f = 200 \text{ MHz}$		200		MHz
Collector output capacitance		C <sub>ob</sub>	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		11	20	pF
(Common base, input open circuited)							

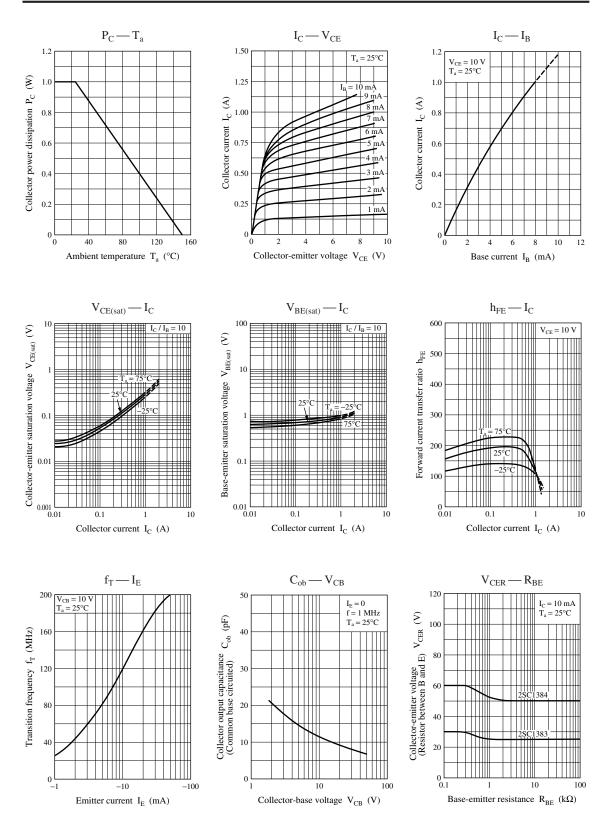
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

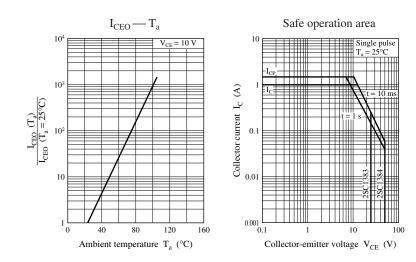
2. \*1: Pulse measurement

\*2: Rank classification

Rank	Q	R	S	
h <sub>FE1</sub>	85 to 170	120 to 240	170 to 340	

## Panasonic





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