# 2SD2216J

### Silicon NPN epitaxial planar type

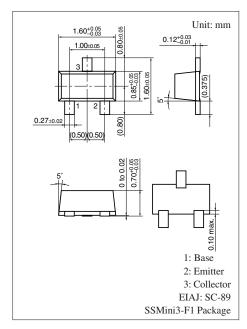
For general amplification Complementary to 2SB1462J

#### ■ Features

- High forward current transfer ratio h<sub>FE</sub>
- ullet Low collector-emitter saturation voltage  $V_{\text{CE(sat)}}$
- SS-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing.

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	60	V	
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	50	V	
Emitter-base voltage (Collector open)	$V_{EBO}$	7	V	
Collector current	$I_C$	100	mA	
Peak collector current	$I_{CP}$	200	mA	
Collector power dissipation	P <sub>C</sub>	125	mW	
Junction temperature	$T_j$	125	°C	
Storage temperature	T <sub>stg</sub>	-55 to +150	°C	



Marking Symbol: Y

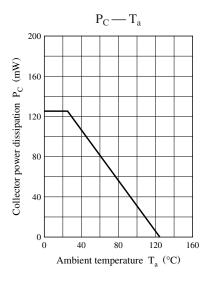
### ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

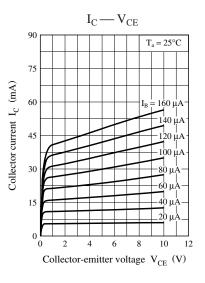
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_C = 10 \mu\text{A},  I_E = 0$	60			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_C = 2 \text{ mA}, I_B = 0$	50			V
Emitter-base voltage (Collector open)	$V_{EBO}$	$I_E = 10 \ \mu A, I_C = 0$	7			V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = 20 \text{ V}, I_{E} = 0$			0.1	μΑ
Collector-emitter cutoff current (Base open)	I <sub>CEO</sub>	$V_{CE} = 10 \text{ V}, I_{B} = 0$			100	μΑ
Forward current transfer ratio	h <sub>FE1</sub>	$V_{CE} = 10 \text{ V}, I_{C} = 2 \text{ mA}$	180		390	_
	h <sub>FE2</sub>	$V_{CE} = 2 \text{ V}, I_{C} = 100 \text{ mA}$	90			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_C = 100 \text{ mA}, I_B = 10 \text{ mA}$		0.1	0.3	V
Transition frequency	$f_T$	$V_{CB} = 10 \text{ V}, I_{E} = -2 \text{ mA}, f = 200 \text{ MHz}$		150		MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		3.5		pF
(Common base, input open circuited)						

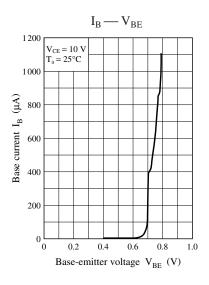
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

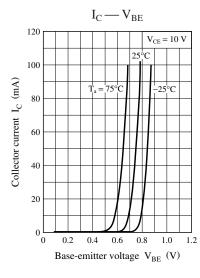
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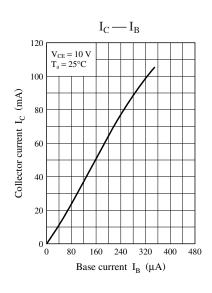
## **Panasonic**

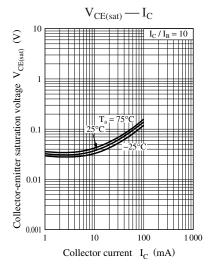


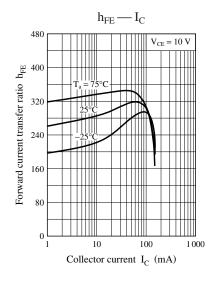


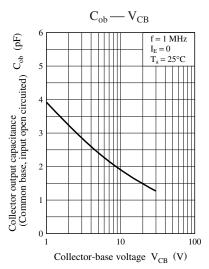












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