# XN04401 (XN4401)

### Silicon PNP epitaxial planar type

For general amplification

#### Features

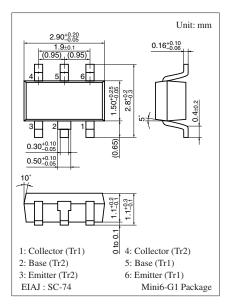
- Two elements incorporated into one package
- Reduction of the mounting area and assembly cost by one half

#### Basic Part Number

• 2SB0709A (2SB709A) × 2

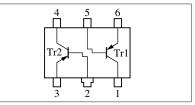
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	-60	V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	-50	V
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	-7	V
Collector current	I <sub>C</sub>	-100	mA
Peak collector current	I <sub>CP</sub>	-200	mA
Total power dissipation	P <sub>T</sub>	300	mW
Junction temperature	Tj	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

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



#### Marking Symbol: 5K

#### Internal Connection



#### Parameter Symbol Conditions Min Тур Max Unit Collector-base voltage (Emitter open) V<sub>CBO</sub> $I_{C} = -10 \ \mu A, I_{E} = 0$ -60v Collector-emitter voltage (Base open) V<sub>CEO</sub> $I_{C} = -2 \text{ mA}, I_{B} = 0$ -50V $I_E = -10 \ \mu A, \ I_C = 0$ -7 v Emitter-base voltage (Collector open) VEBO $V_{CB} = -20 \text{ V}, I_E = 0$ Collector-base cutoff current (Emitter open) -0.1μΑ I<sub>CBO</sub> Collector-emitter cutoff current (Base open) $V_{CE} = -10 \text{ V}, I_B = 0$ -100 $\mathbf{I}_{\mathrm{CEO}}$ μA $V_{CE} = -10 \text{ V}, I_C = -2 \text{ mA}$ Forward current transfer ratio h<sub>FE</sub> 160 460 $I_{C} = -100 \text{ mA}, I_{B} = -10 \text{ mA}$ V Collector-emitter saturation voltage V<sub>CE(sat)</sub> -0.3-0.5 $V_{CB} = -10 \text{ V}, I_E = 1 \text{ mA}, f = 200 \text{ MHz}$ 80 MHz Transition frequency $\mathbf{f}_{\mathrm{T}}$ $V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$ Collector output capacitance Cob 2.7 pF (Common base, input open circuited)

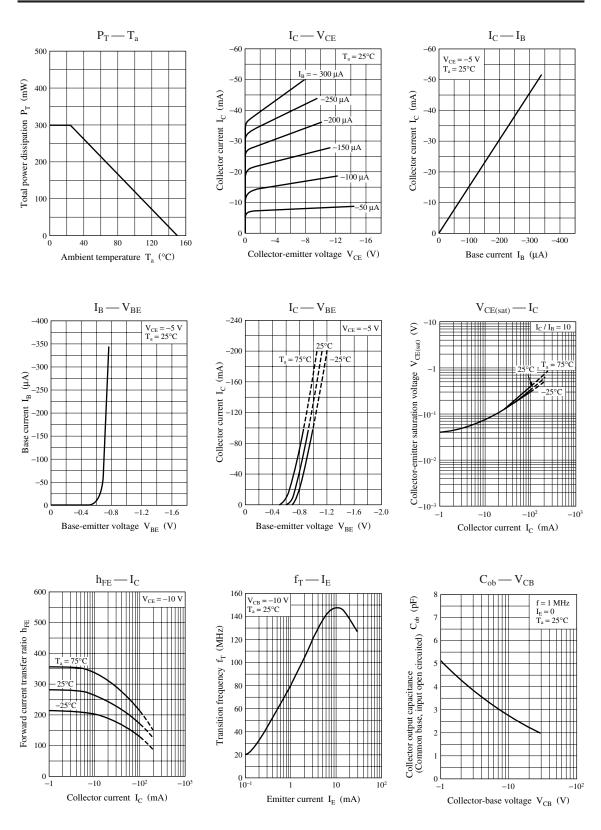
### Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

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

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

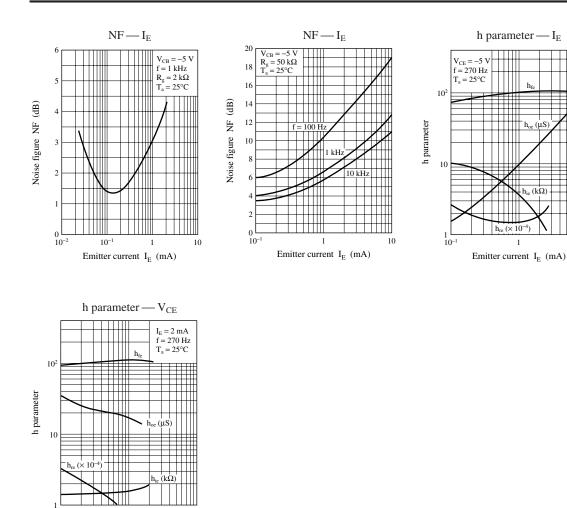
#### XN04401





### Panasonic

10



-10 -10 -1Collector-emitter voltage V<sub>CE</sub> (V)

-1

 $-10^{2}$ 

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