XN06501 (XN6501)

Silicon NPN epitaxial planar type

For general amplification

Features

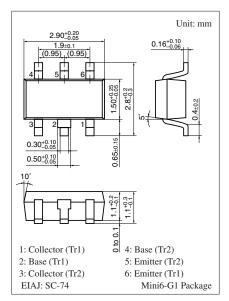
- Two elements incorporated into one package
- Reduction of the mounting area and assembly cost by one half

Basic Part Number

• 2SD0601A (2SD601A) × 2

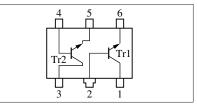
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V _{CBO}	60	V
Collector-emitter voltage (Base open)	V _{CEO}	50	V
Emitter-base voltage (Collector open)	V _{EBO}	7	V
Collector current	I _C	100	mA
Peak collector current	I _{CP}	200	mA
Total power dissipation	P _T	300	mW
Junction temperature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

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



Marking Symbol: 5N

Internal Connection



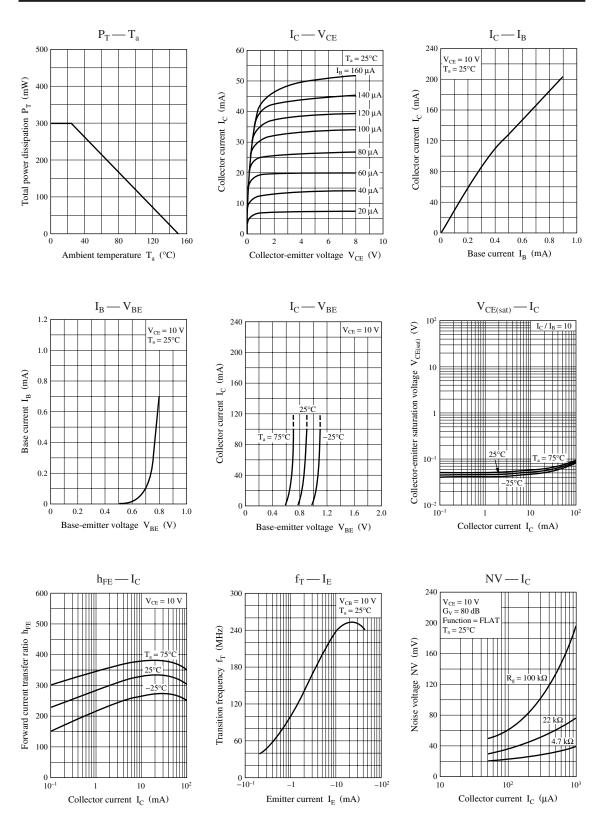
Parameter Symbol Conditions Min Max Unit Тур Collector-base voltage (Emitter open) $I_{C} = 10 \ \mu A, I_{E} = 0$ 60 V V_{CBO} Collector-emitter voltage (Base open) V_{CEO} $I_{C} = 2 \text{ mA}, I_{B} = 0$ 50 V 7 v Emitter-base voltage (Collector open) V_{EBO} $I_E = 10 \ \mu A, I_C = 0$ $V_{CB} = 20 \text{ V}, I_E = 0$ Collector-base cutoff current (Emitter open) 0.1 μΑ I_{CBO} Collector-emitter cutoff current (Base open) $V_{CE} = 10 \text{ V}, I_B = 0$ 100 μΑ I_{CEO} Forward current transfer ratio $V_{CE} = 10 \text{ V}, I_{C} = 2 \text{ mA}$ 160 460 h_{FE} h_{FE} ratio * $V_{CE} = 10 \text{ V}, I_C = 2 \text{ mA}$ 0.50 0.99 h_{FE(Small/} Large) $I_{C} = 100 \text{ mA}, I_{B} = 10 \text{ mA}$ v Collector-emitter saturation voltage 0.1 0.3 V_{CE(sat)} $V_{CB} = 10 \text{ V}, I_E = -2 \text{ mA}, f = 200 \text{ MHz}$ Transition frequency f_T 150 MHz $V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$ Collector output capacitance Cob 3.5 pF (Common base, input open circuited)

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

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors. 2. *: Ratio between 2 elements

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

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