

XN04502 (XN4502)

Silicon NPN epitaxial planar type

For general amplification

■ Features

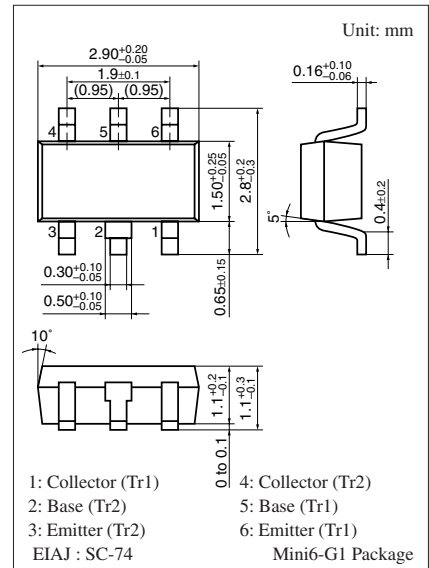
- Two elements incorporated into one package
- Reduction of the mounting area and assembly cost by one half

■ Basic Part Number

- 2SD0602A (2SD602A) × 2

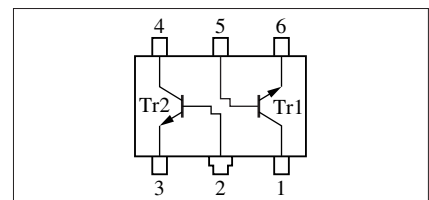
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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}	5	V
Collector current	I_{C}	0.5	A
Peak collector current	I_{CP}	1	A
Total power dissipation	P_{T}	300	mW
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



Marking Symbol: 5Q

Internal Connection



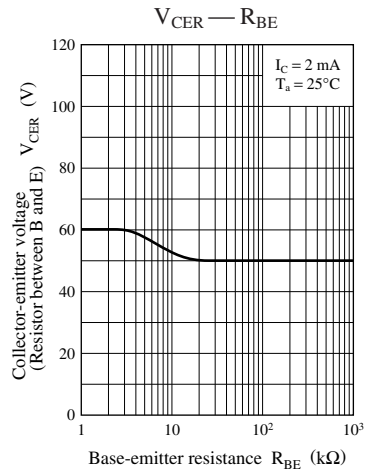
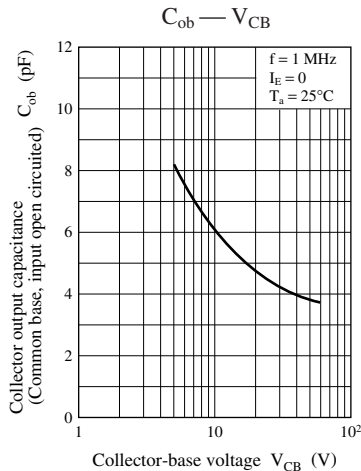
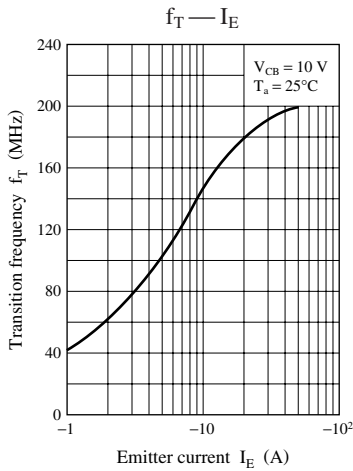
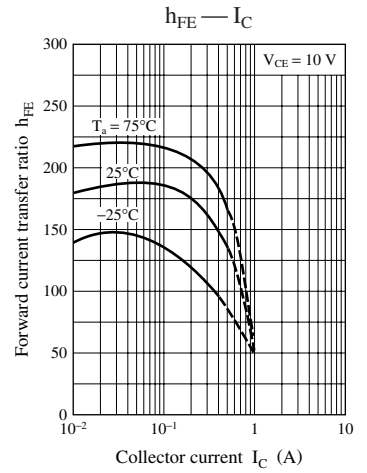
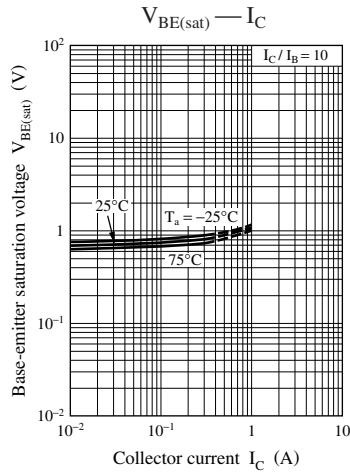
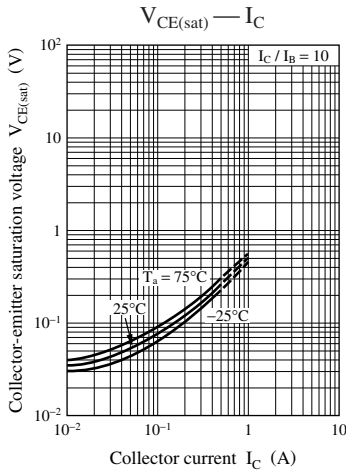
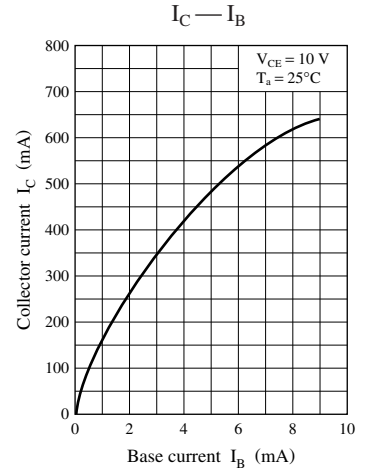
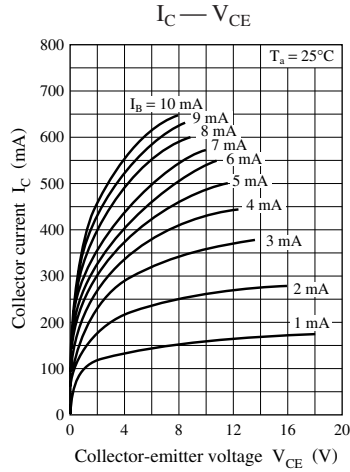
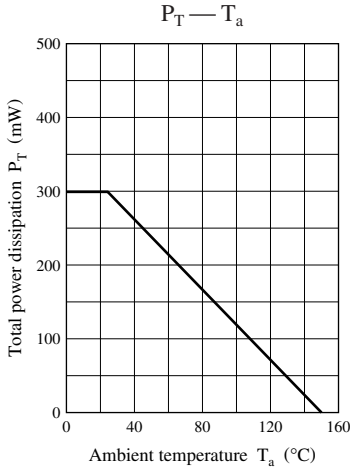
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_{\text{C}} = 10 \mu\text{A}$, $I_{\text{E}} = 0$	60			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_{\text{C}} = 2 \text{mA}$, $I_{\text{B}} = 0$	50			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_{\text{E}} = 10 \mu\text{A}$, $I_{\text{C}} = 0$	5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{\text{CB}} = 20 \text{V}$, $I_{\text{E}} = 0$			0.1	μA
Forward current transfer ratio	h_{FE1}	$V_{\text{CE}} = 10 \text{V}$, $I_{\text{C}} = 150 \text{mA}$	85		340	—
	h_{FE2}^*	$V_{\text{CE}} = 10 \text{V}$, $I_{\text{C}} = 500 \text{mA}$	40			
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = 300 \text{mA}$, $I_{\text{B}} = 30 \text{mA}$		0.35	0.60	V
Transition frequency	f_{T}	$V_{\text{CB}} = 10 \text{V}$, $I_{\text{E}} = -50 \text{mA}$, $f = 200 \text{MHz}$		200		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{\text{CB}} = 10 \text{V}$, $I_{\text{E}} = 0$, $f = 1 \text{MHz}$		6	15	pF

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

2. *: Pulse measurement

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



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