XN04502 (XN4502)

Silicon NPN epitaxial planer transistor

For general amplification

Features

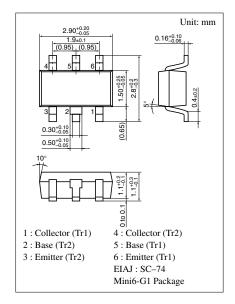
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

Basic Part Number of Element

• $2SD0602A(2SD602A) \times 2$ elements

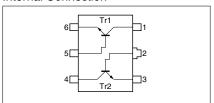
Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Ratings	Unit	
Rating of element	Collector to base voltage	V_{CBO}	60	V	
	Collector to emitter voltage	V_{CEO}	50	V	
	Emitter to base voltage	V_{EBO}	5	V	
	Collector current	I_{C}	0.5	A	
	Peak collector current	I_{CP}	1	A	
Overall	Total power dissipation	P_{T}	300	mW	
	Junction temperature	T_{j}	150	°C	
	Storage temperature	T_{stg}	-55 to +150	°C	



Marking Symbol: 5Q

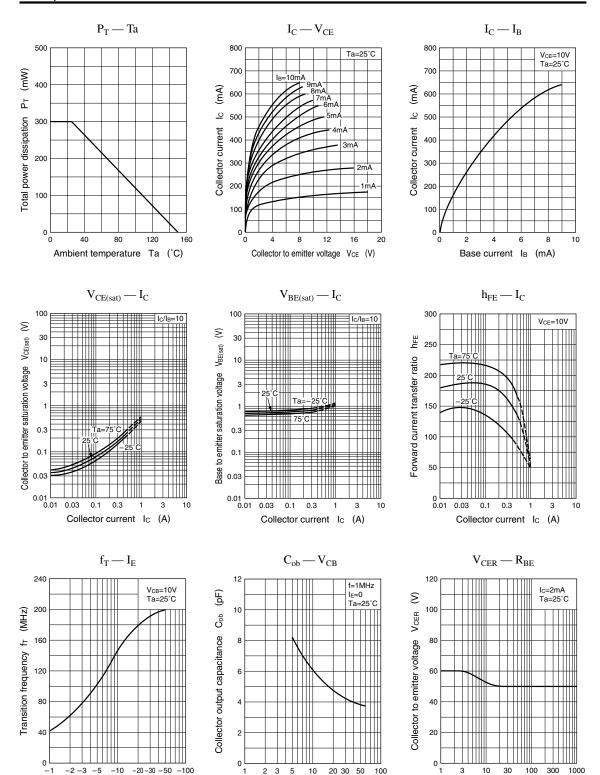
Internal Connection



Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V _{CBO}	$I_C = 10\mu A, I_E = 0$	60			V
Collector to emitter voltage	V _{CEO}	$I_C = 2mA, I_B = 0$	50			V
Emitter to base voltage	V _{EBO}	$I_{\rm E} = 10 \mu A, I_{\rm C} = 0$	5			V
Collector cutoff current	I_{CBO}	$V_{CB} = 20V, I_E = 0$			0.1	μΑ
E 1 C	h _{FE1}	$V_{CE} = 10V, I_{C} = 150mA*$	85		340	
Forward current transfer ratio	h _{FE2}	$V_{CE} = 10V, I_{C} = 500 \text{mA*}$	40			
Collector to emitter saturation voltage	V _{CE(sat)}	$I_C = 300 \text{mA}, I_B = 30 \text{mA}*$		0.35	0.6	V
Transition frequency	f_T	$V_{CB} = 10V, I_{E} = -50mA, f = 200MHz$		200		MHz
Collector output capacitance	C _{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$		6	15	pF

^{*} Pulse measurement



Collector to base voltage V_{CB} (V)

Base to emitter resistance R_{BE} (k Ω)

2 Panasonic

(mA)

Emitter current IE

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