XN01504 (XN1504)

Silicon NPN epitaxial planer transistor

For amplification of low frequency output

Features

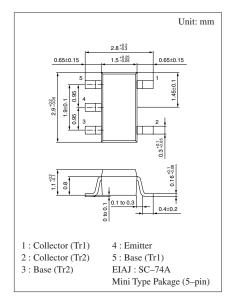
- Two elements incorporated into one package. (Emitter-coupled transistors)
- Reduction of the mounting area and assembly cost by one half.

Basic Part Number of Element

• 2SD1915F × 2 elements

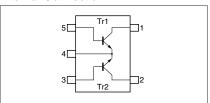
Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Ratings	Unit	
Rating of element	Collector to base voltage	V_{CBO}	50	V	
	Collector to emitter voltage	V_{CEO}	20	V	
	Emitter to base voltage	V _{EBO} 25		V	
	Collector current	I_{C}	300	mA	
	Peak collector current	I_{CP}	500	mA	
Overall	Total power dissipation	P_{T}	300	mW	
	Junction temperature	T_{j}	150	°C	
	Storage temperature	T_{stg}	-55 to +150	°C	



Marking Symbol: 5S

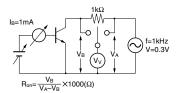
Internal Connection



Electrical Characteristics (Ta=25°C)

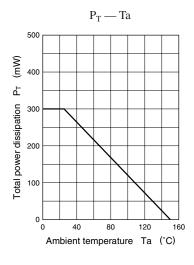
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to emitter voltage	V _{CEO}	$I_C = 1 \text{mA}, I_B = 0$	20			V
Collector cutoff current	I_{CBO}	$V_{CB} = 50V, I_E = 0$			0.1	μΑ
Emitter cutoff current	I_{EBO}	$V_{EB} = 25V, I_{C} = 0$			0.1	μΑ
Forward current transfer ratio	h _{FE}	$V_{CE} = 2V$, $I_C = 4mA$	500		2500	
Forward current transfer h _{FE} ratio	h _{FE} (small/large)*1	$V_{CE} = 2V$, $I_C = 4mA$	0.5	0.99		
Collector to emitter saturation voltage	V _{CE(sat)}	$I_C = 30\text{mA}, I_B = 3\text{mA}$			0.1	V
Base to emitter voltage	V_{BE}	$V_{CE} = 2V$, $I_C = 4mA$		0.6		V
Transition frequency	f_T	$V_{CB} = 6V$, $I_E = -4mA$, $f = 200MHz$		80		MHz
Collector output capacitance	C _{ob}	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$			7	pF
ON Resistance	R _{on} *2			1.0		Ω

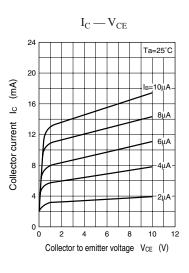
^{*1} Ratio between 2 elements

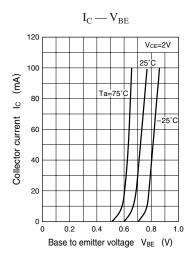


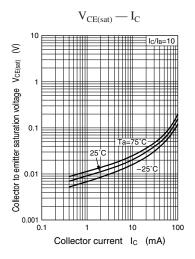
Note.) The Part number in the Parenthesis shows conventional part number.

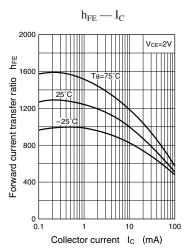
^{*2} Ron test circuit

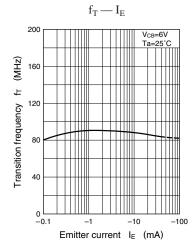


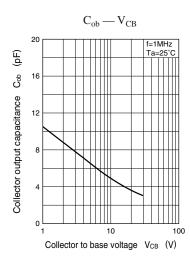












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