XP01210 (XP1210)

Silicon NPN epitaxial planer transistor

For switching/digital circuits

Features

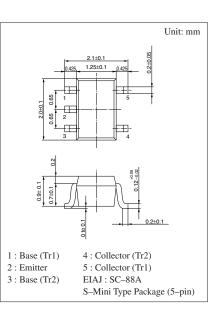
- Two elements incorporated into one package. (Emitter-coupled transistors with built-in resistor)
- Reduction of the mounting area and assembly cost by one half.

Basic Part Number of Element

• UNR1210(UN1210) \times 2 elements

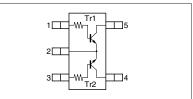
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Parameter		Symbol	Ratings	Unit				
Rating of element	Collector to base voltage	V _{CBO}	50	V				
	Collector to emitter voltage	V _{CEO}	50	V				
	Collector current	I _C	100	mA				
Overall	Total power dissipation	P _T	150	mW				
	Junction temperature	T_j	150	°C				
	Storage temperature	T _{stg}	-55 to +150	°C				

Absolute Maximum Ratings (Ta=25°C)



Marking Symbol: AC

Internal Connection

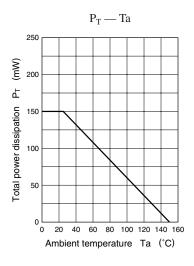


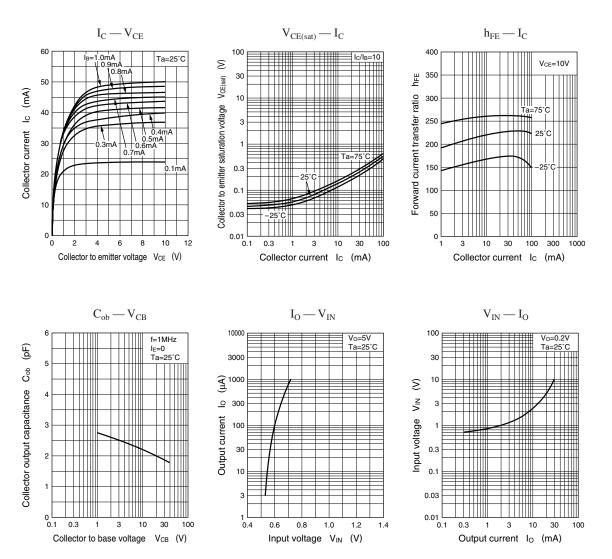
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V _{CBO}	$I_C = 10 \mu A, I_E = 0$	50			V
Collector to emitter voltage	V _{CEO}	$I_C = 2mA, I_B = 0$	50			V
Collector cutoff current	I _{CBO}	$V_{CB} = 50V, I_E = 0$			0.1	μΑ
Collector cutoff current	I _{CEO}	$V_{CE} = 50V, I_B = 0$			0.5	μΑ
Emitter cutoff current	I _{EBO}	$V_{EB} = 6V, I_C = 0$			0.01	mA
Forward current transfer ratio	h _{FE}	$V_{CE} = 10V, I_{C} = 5mA$	160		460	
Forward current transfer h_{FE} ratio	h _{FE} (small/large)*	$V_{CE} = 10V, I_C = 5mA$	0.5	0.99		
Collector to emitter saturation voltage	V _{CE(sat)}	$I_{\rm C} = 10 {\rm mA}, I_{\rm B} = 0.3 {\rm mA}$			0.25	V
Output voltage high level	V _{OH}	$V_{CC} = 5V, V_B = 0.5V, R_L = 1k\Omega$	4.9			V
Output voltage low level	V _{OL}	$V_{CC} = 5V, V_B = 2.5V, R_L = 1k\Omega$			0.2	V
Transition frequency	f _T	$V_{CB} = 10V, I_E = -2mA, f = 200MHz$		150		MHz
Input resistance	R ₁		-30%	47	+30%	kΩ

Electrical Characteristics (Ta=25°C)

* Ratio between 2 elements

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





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