XP01118 (XP1118)

Silicon PNP epitaxial planer transistor

For switching/digital circuits

Features

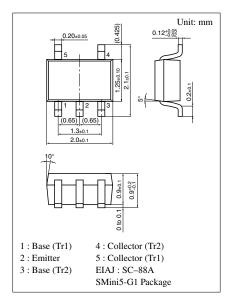
- Two elements incorporated into one package. (Emitter-coupled transistors with built-in resistor)
- Reduction of the mounting area and assembly cost by one half.

Basic Part Number of Element

• UNR1118(UN1118) × 2 elements

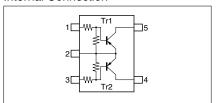
Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Ratings	Unit	
Rating of element	Collector to base voltage	V_{CBO}	-50	V	
	Collector to emitter voltage	V_{CEO}	-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	



Marking Symbol: OM

Internal Connection

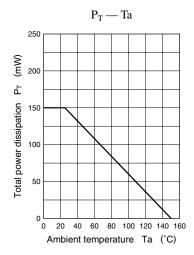


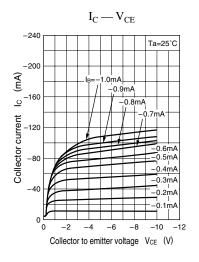
Electrical Characteristics (Ta=25°C)

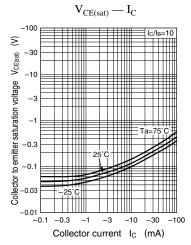
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V _{CBO}	$I_C = -10\mu A, I_E = 0$	-50			V
Collector to emitter voltage	V _{CEO}	$I_{C} = -2mA, I_{B} = 0$	-50			V
Collector cutoff current	I_{CBO}	$V_{CB} = -50V, I_{E} = 0$			-0.1	μΑ
Conector cuton current	I_{CEO}	$V_{CE} = -50V, I_B = 0$			- 0.5	μΑ
Emitter cutoff current	I_{EBO}	$V_{EB} = -6V, I_C = 0$			-2.0	mA
Forward current transfer ratio	h _{FE}	$V_{CE} = -10V, I_{C} = -5mA$	20			
Forward current transfer h _{FE} ratio	h _{FE} (small/large)*1	$V_{CE} = -10V, I_{C} = -5mA$	0.5	0.99		
Collector to emitter saturation voltage	V _{CE(sat)}	$I_C = -10 \text{mA}, I_B = -0.3 \text{mA}$			- 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	$V_{CB} = -10V$, $I_E = 1mA$, $f = 200MHz$		80		MHz
Input resistance	R ₁		-30%	0.51	+30%	kΩ
Resistance ratio	R ₁ /R ₂		0.08	0.1	0.12	

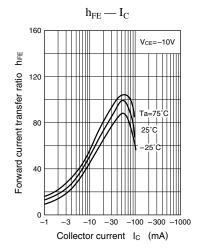
^{*1} Ratio between 2 elements

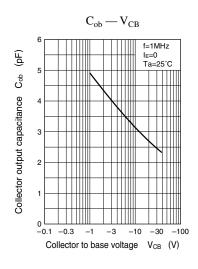
Note) The Part number in the Parenthesis shows conventional part number.

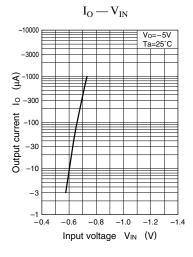


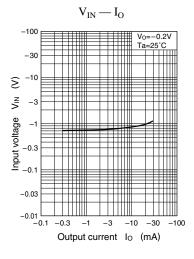












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