

XP0411M (XP411M)

Silicon PNP epitaxial planar transistor

For digital circuits

■ Features

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

■ Basic Part Number of Element

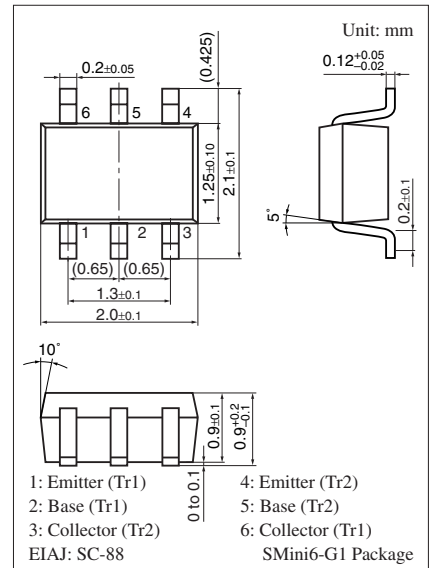
- UNR111M (UN111M) × 2 elements

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

Parameter		Symbol	Rating	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
Total	Total power dissipation	P_T	150	mW
	Junction temperature	T_j	150	$^\circ\text{C}$
	Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

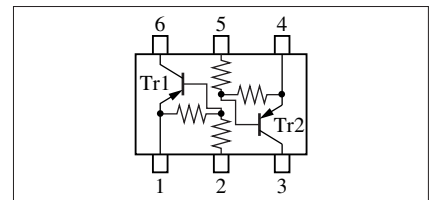
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector to base voltage	V_{CBO}	$I_C = -10 \mu\text{A}, I_E = 0$	-50			V
Collector to emitter voltage	V_{CEO}	$I_C = -2 \text{mA}, I_B = 0$	-50			V
Collector cutoff current	I_{CBO}	$V_{CB} = -50 \text{V}, I_E = 0$			-0.1	μA
	I_{CEO}	$V_{CE} = -50 \text{V}, I_B = 0$			-0.5	
Emitter cutoff current	I_{EBO}	$V_{EB} = -6 \text{V}, I_C = 0$			-0.2	mA
DC current gain	h_{FE}	$V_{CE} = -10 \text{V}, I_C = -5 \text{mA}$	80			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10 \text{mA}, I_B = -0.3 \text{mA}$			-0.25	V
High level output voltage	V_{OH}	$V_{CC} = -5 \text{V}, V_B = -0.5 \text{V}, R_L = 1 \text{k}\Omega$	-4.9			V
Low level output voltage	V_{OL}	$V_{CC} = -5 \text{V}, V_B = -2.5 \text{V}, R_L = 1 \text{k}\Omega$			-0.2	V
Input resistance	R_1		-30%	2.2	+30%	k Ω
Resistance ratio	R_1 / R_2			0.047		
Gain bandwidth product	f_T	$V_{CB} = -10 \text{V}, I_E = 1 \text{mA}, f = 200 \text{MHz}$		80		MHz

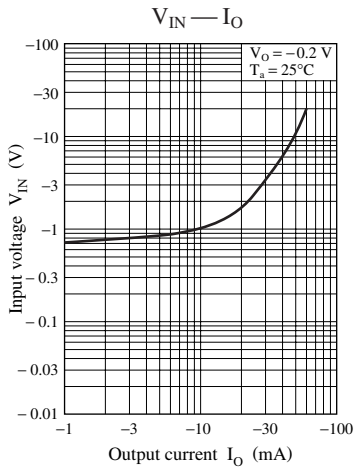
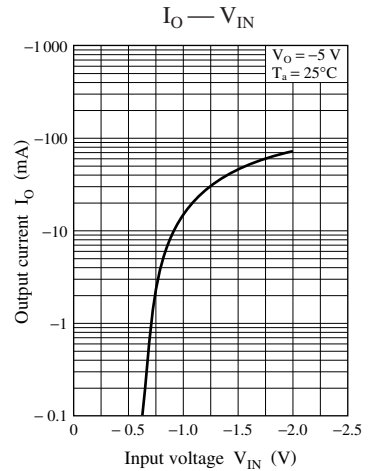
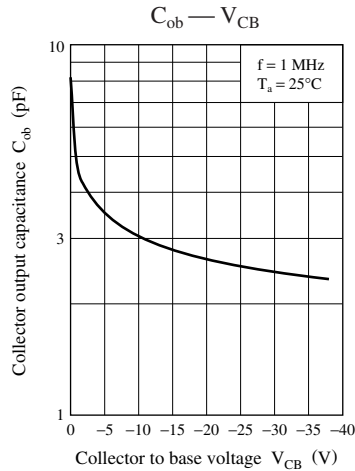
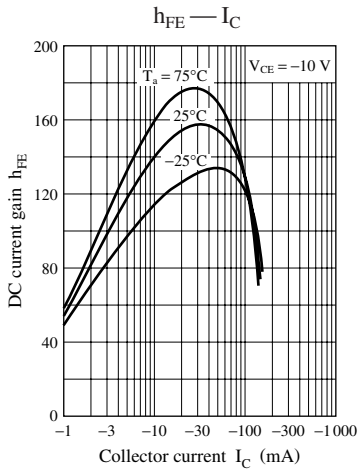
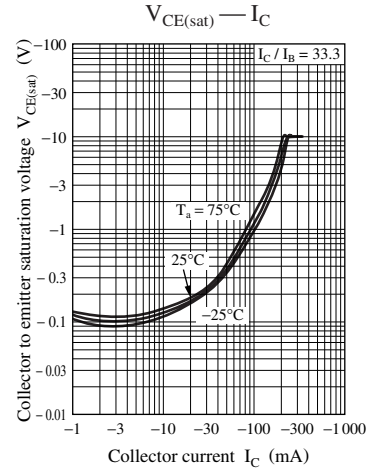
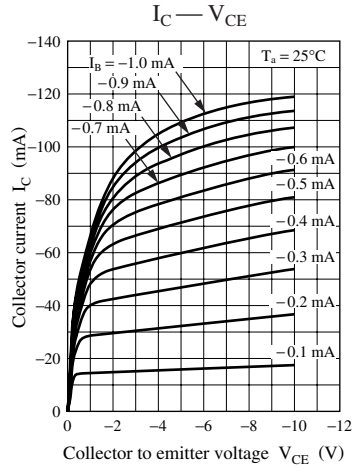
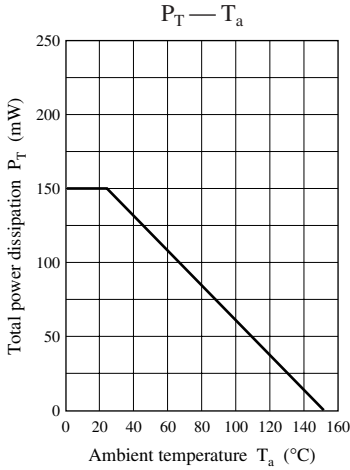


Marking Symbol: EA

Internal Connection



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



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