

XP6435

Silicon PNP epitaxial planer transistor

For high-frequency amplification

■ Features

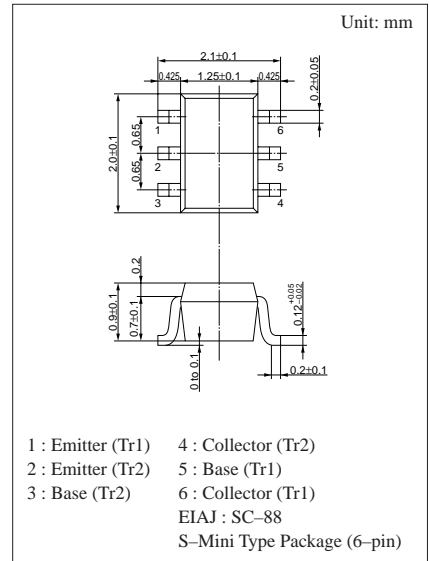
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

■ Basic Part Number of Element

- 2SA1022 × 2 elements

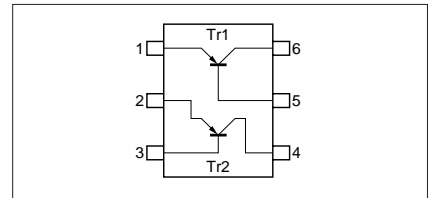
■ Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Ratings	Unit
Rating of element	Collector to base voltage	V_{CBO}	-30	V
	Collector to emitter voltage	V_{CEO}	-20	V
	Emitter to base voltage	V_{EBO}	-5	V
	Collector current	I_C	-30	mA
Overall	Total power dissipation	P_T	150	mW
	Junction temperature	T_j	150	°C
	Storage temperature	T_{sig}	-55 to +150	°C



Marking Symbol: 7W

Internal Connection

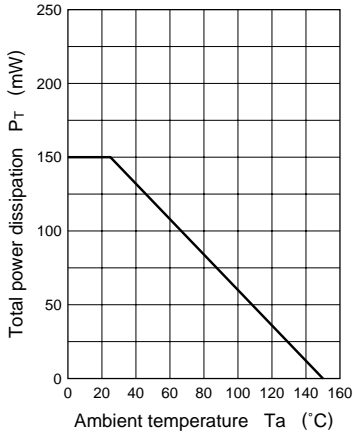


■ Electrical Characteristics (Ta=25°C)

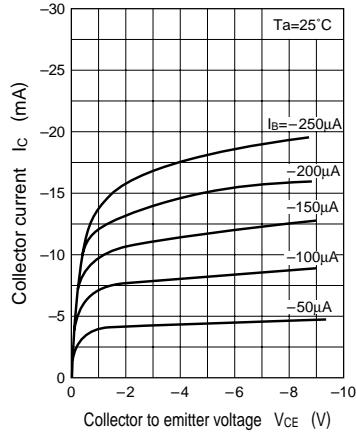
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -10V, I_E = 0$			-0.1	μA
	I_{CEO}	$V_{CE} = -20V, I_B = 0$			-100	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-10	μA
Forward current transfer ratio	h_{FE}	$V_{CB} = -10V, I_E = 1mA$	50		220	
Forward current transfer h_{FE} ratio	$h_{FE}(\text{small/large})^{*1}$	$V_{CB} = -10V, I_E = 1mA$	0.5	0.99		
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -1mA$		-0.1		V
Base to emitter voltage	V_{BE}	$V_{CE} = -10V, I_C = -1mA$		-0.7		V
Transition frequency	f_T	$V_{CB} = -10V, I_E = 1mA, f = 200MHz$	150			MHz
Noise figure	NF	$V_{CB} = -10V, I_E = 1mA, f = 5MHz$		2.8		dB
Reverse transfer impedance	Z_{rb}	$V_{CB} = -10V, I_E = 1mA, f = 2MHz$		22		Ω
Common emitter reverse transfer capacitance	C_{re}	$V_{CB} = -10V, I_E = 1mA, f = 10.7MHz$		1.2		pF

*1 Ratio between 2 elements

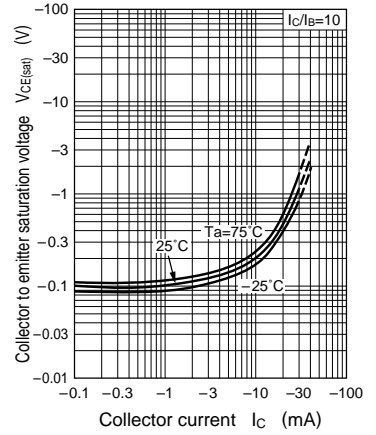
$P_T - T_a$



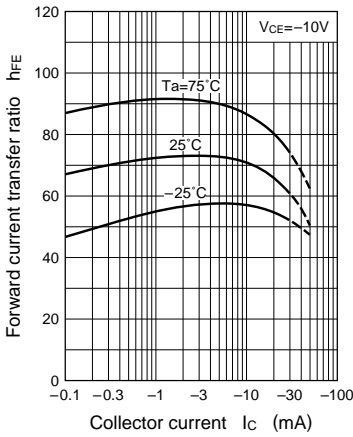
$I_C - V_{CE}$



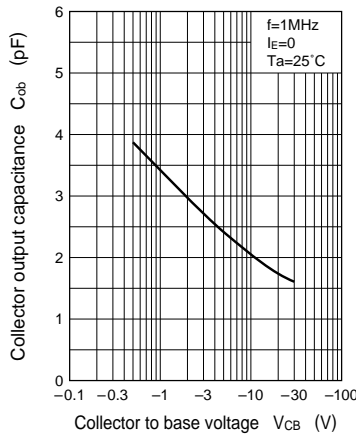
$V_{CE(sat)} - I_C$



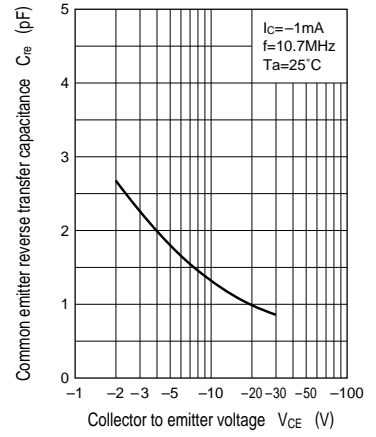
$h_{FE} - I_C$



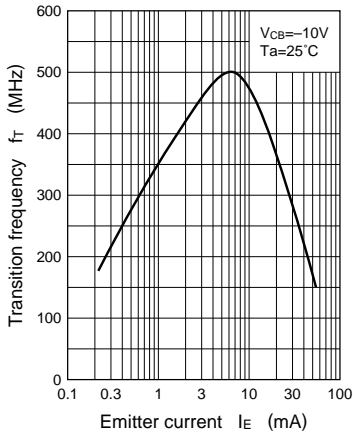
$C_{ob} - V_{CB}$



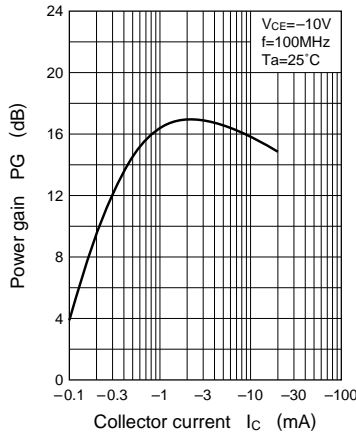
$C_{re} - V_{CE}$



$f_T - I_E$



$PG - I_C$



$NF - I_E$

