

XN04A88

Silicon NPN epitaxial planer transistor (Tr1)
 Silicon PNP epitaxial planer transistor (Tr2)

For amplification of low frequency output

■ Features

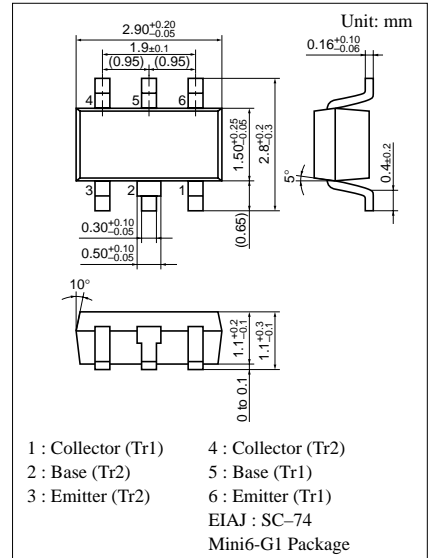
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

■ Basic Part Number of Element

- 2SD0601A(2SD601A)+UNR111S(UN111S)

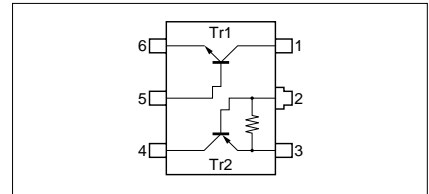
■ Absolute Maximum Ratings (Ta=25°C)

	Parameter	Symbol	Ratings	Unit
Tr1	Collector to base voltage	V_{CBO}	60	V
	Collector to emitter voltage	V_{CEO}	50	V
	Emitter to base voltage	V_{EBO}	7	V
	Collector current	I_C	100	mA
	Peak collector current	I_{CP}	200	mA
Tr2	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	300	mW
	Junction temperature	T_j	150	°C
	Storage temperature	T_{stg}	-55 to +150	°C



Marking Symbol: IZ

Internal Connection



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

■ Electrical Characteristics (Ta=25°C)

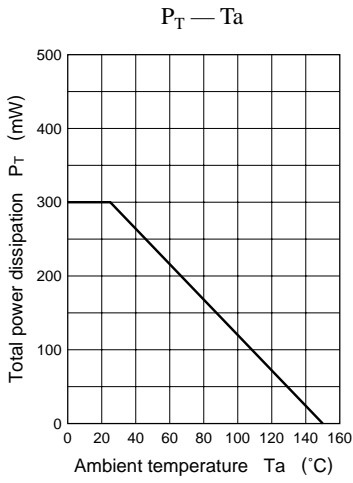
● Tr1

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	$I_C = 10\mu A, I_E = 0$	60			V
Collector to emitter voltage	V_{CEO}	$I_C = 2mA, I_B = 0$	50			V
Emitter to base voltage	V_{EBO}	$I_E = 10\mu A, I_C = 0$	7			V
Collector cutoff current	I_{CBO}	$V_{CB} = 20V, I_E = 0$			0.1	μA
	I_{CEO}	$V_{CE} = 10V, I_B = 0$			0.1	mA
Forward current transfer ratio	h_{FE}	$V_{CE} = 10V, I_C = 2mA$	160		460	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100mA, I_B = 10mA$		0.1	0.3	V
Collector output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$		3.5		
Transition frequency	f_T	$V_{CB} = 10V, I_E = -2mA, f = 200MHz$		80		MHz

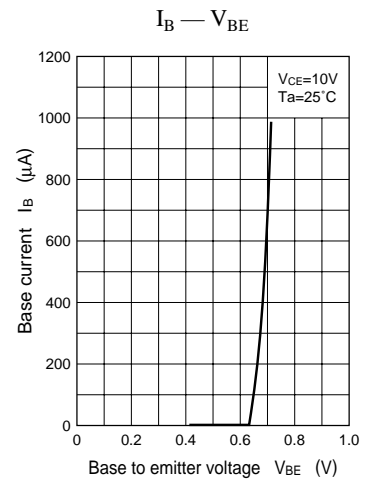
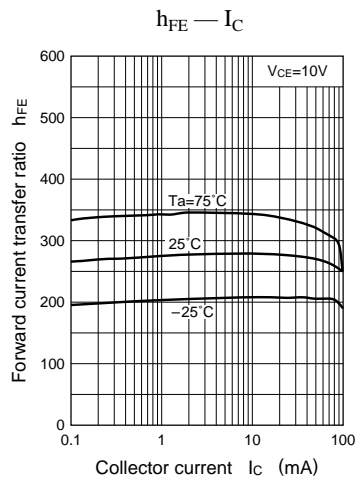
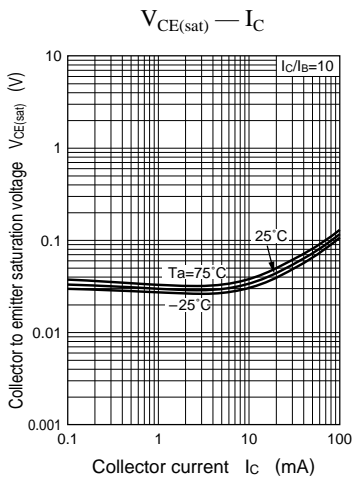
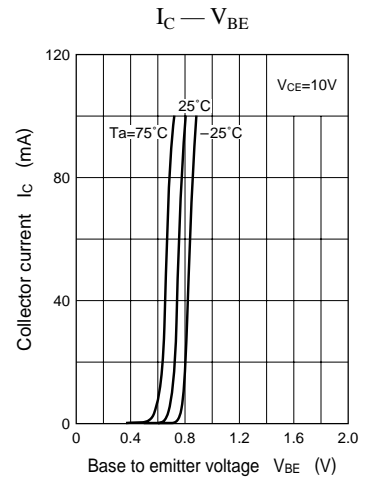
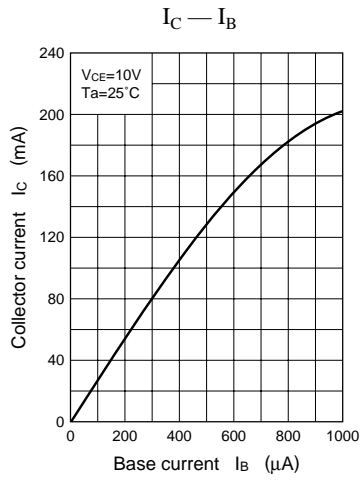
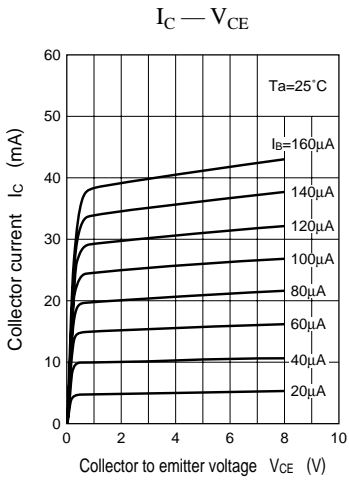
● Tr2

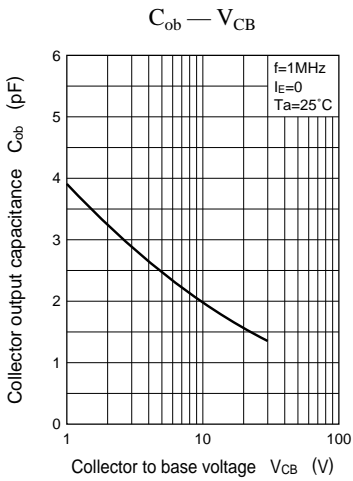
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	$I_C = -10\mu A, I_E = 0$	-50			V
Collector to emitter voltage	V_{CEO}	$I_C = -2mA, I_B = 0$	-50			V
Collector cutoff current	I_{CBO}	$V_{CB} = -50V, I_E = 0$			-0.1	μA
	I_{CEO}	$V_{CE} = -50V, I_B = 0$			-0.5	μA
Emitter cutoff 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			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -0.3mA$			-0.25	V
Base to emitter resistance	R_{BE}		-30%	4.7	+30%	k Ω
Transition frequency	f_T	$V_{CB} = -10V, I_E = 2mA, f = 200MHz$		100		MHz

Common characteristics chart

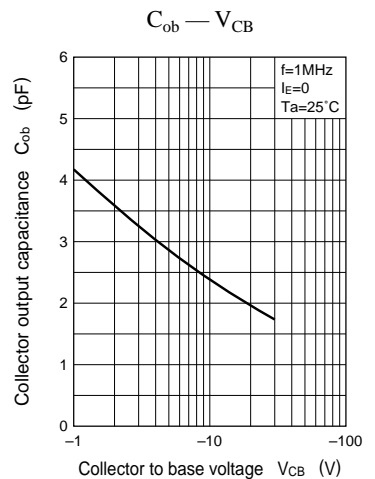
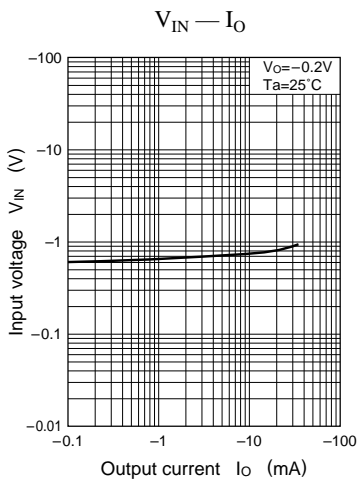
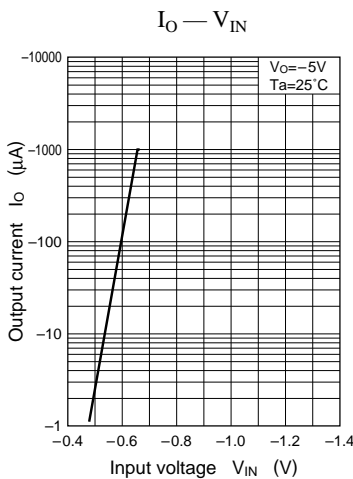
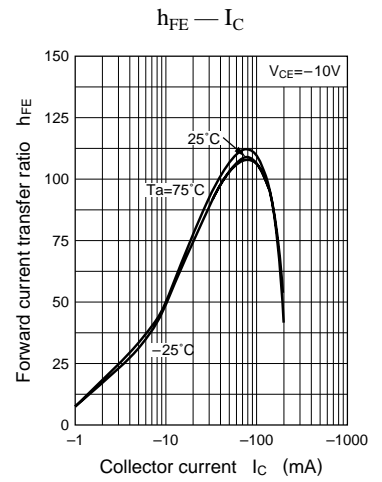
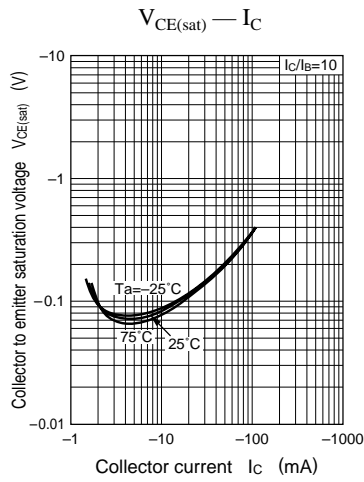
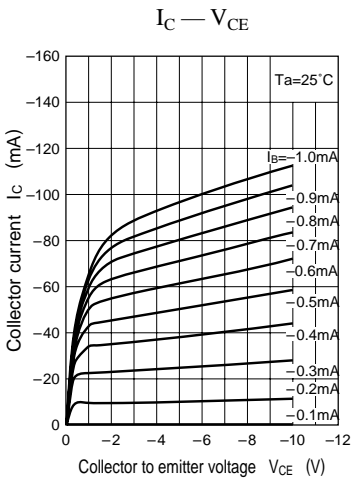


Characteristics charts of Tr1





Characteristics charts of Tr2



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