

XN04A88

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

For amplification of low frequency output

■ Features

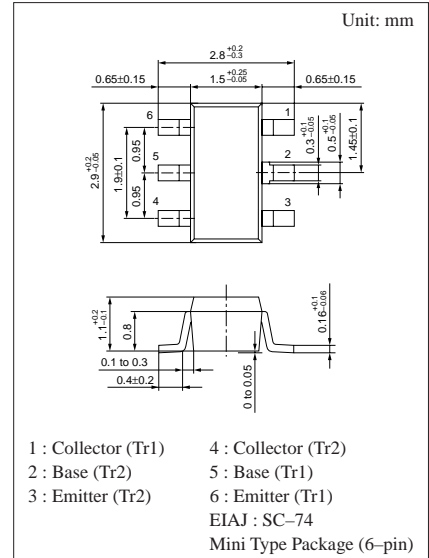
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

■ Basic Part Number of Element

- 2SD601A+UNR511Q

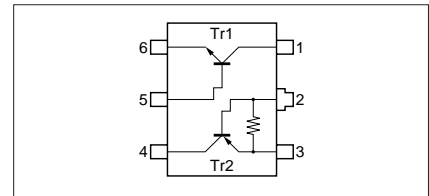
■ Absolute Maximum Ratings (Ta=25°C)

	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



■ Electrical Characteristics (T_a=25°C)

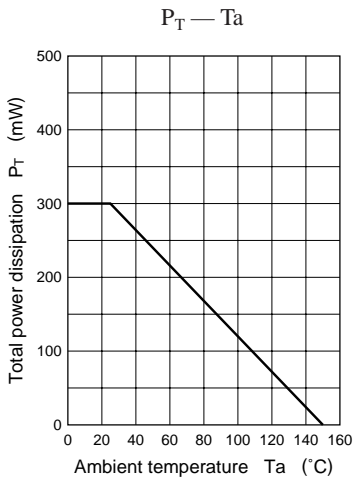
● Tr1

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V _{CBO}	I _C = 10μA, 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 = 10μA, 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

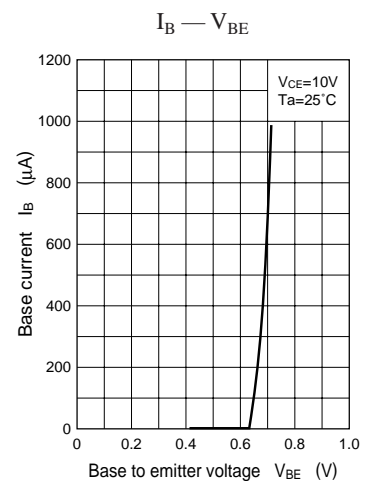
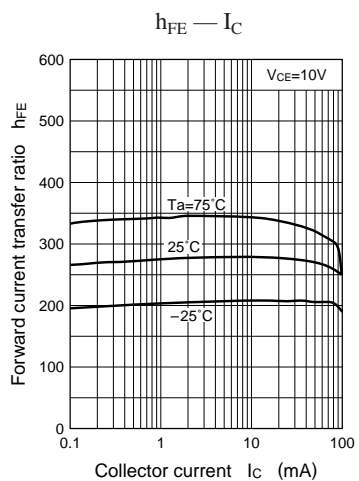
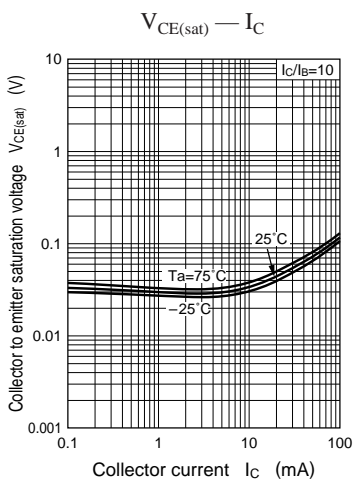
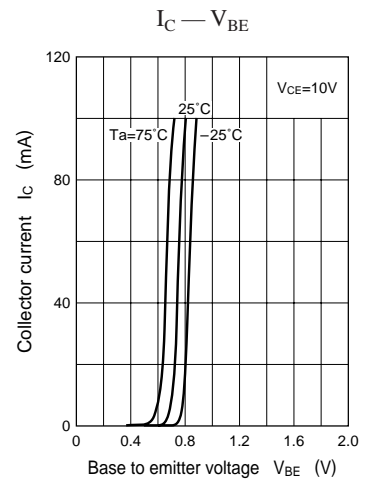
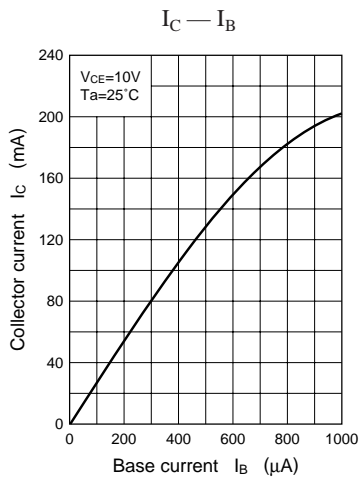
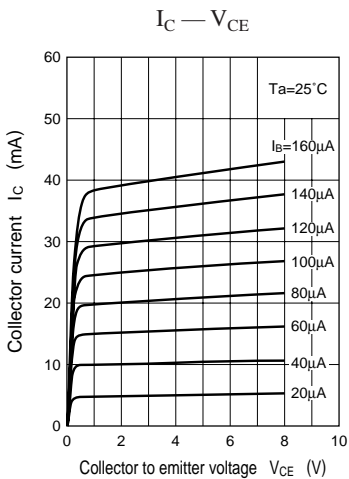
● Tr2

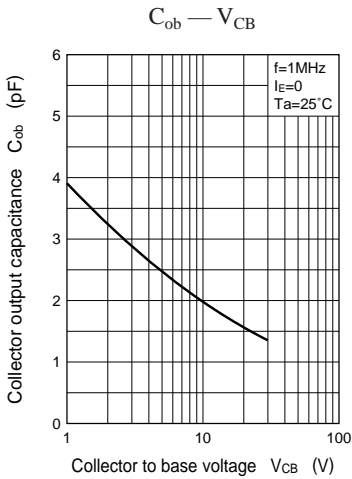
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V _{CBO}	I _C = -10μA, I _E = 0	-50			V
Collector to emitter voltage	V _{CEO}	I _C = -2mA, I _B = 0	-50			V
Collector cutoff current	I _{CBO}	V _{CB} = -50V, I _E = 0			-0.1	μA
	I _{CEO}	V _{CE} = -50V, I _B = 0			-0.5	μA
Emitter 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%	kΩ
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

