

XN05553 (XN5553)

Silicon NPN epitaxial planer transistor

For amplification of the low frequency

Features

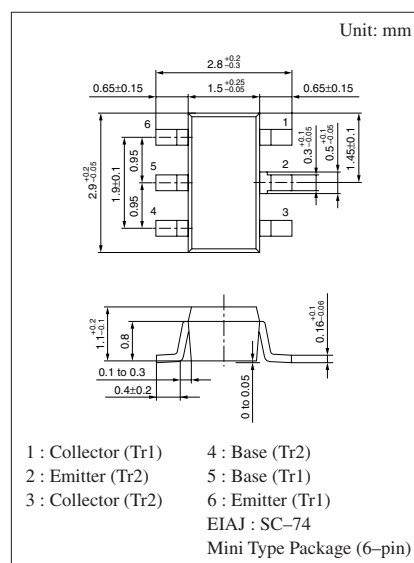
- Two elements incorporated into one package.
- Reduction of the mounting area and assembly cost by one half.

Basic Part Number of Element

- 2SD1149 \times 2 elements

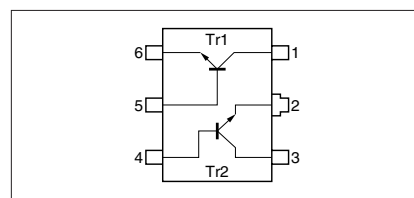
Absolute Maximum Ratings (Ta=25°C)

	Parameter	Symbol	Ratings	Unit
Rating of element	Collector to base voltage	V_{CBO}	100	V
	Collector to emitter voltage	V_{CEO}	100	V
	Emitter to base voltage	V_{EBO}	15	V
	Collector current	I_C	20	mA
	Peak collector current	I_{CP}	50	mA
Overall	Total power dissipation	P_T	300	mW
	Junction temperature	T_j	150	°C
	Storage temperature	T_{sig}	-55 to +150	°C



Marking Symbol: 4U

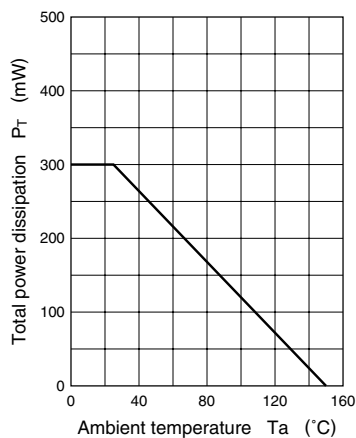
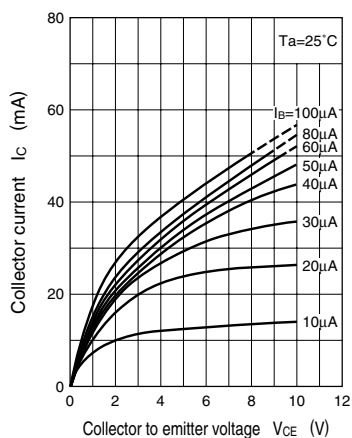
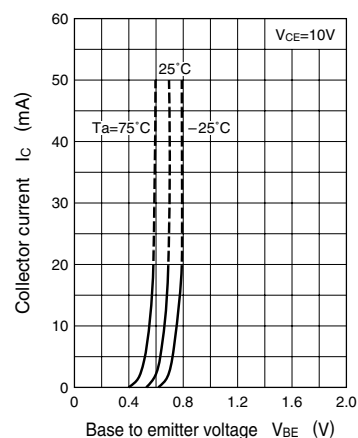
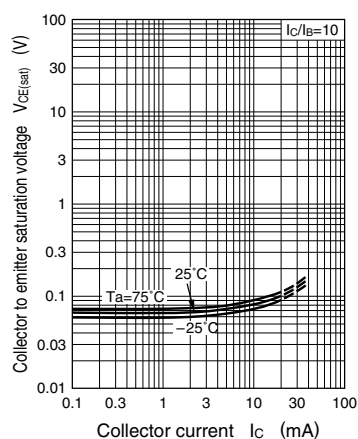
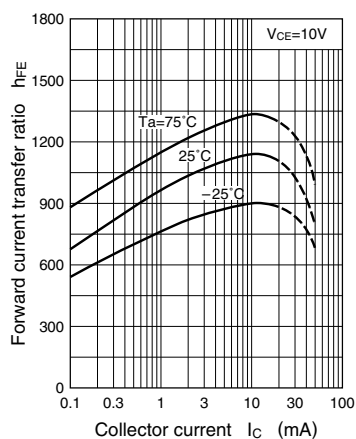
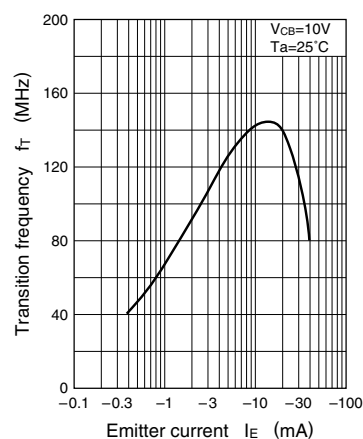
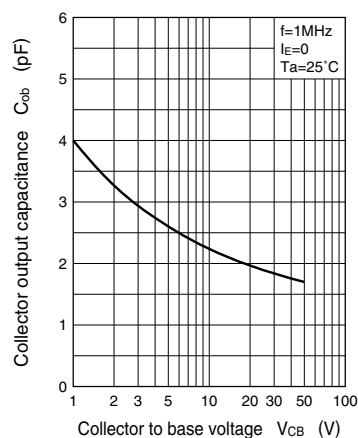
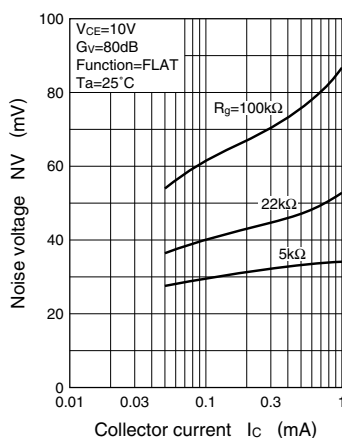
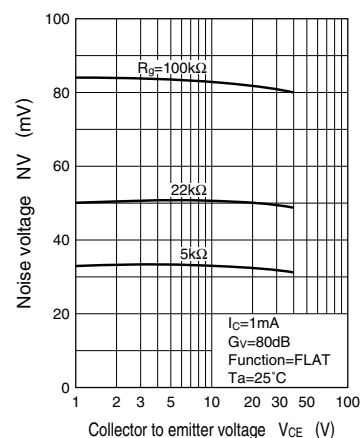
Internal Connection



Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V_{CBO}	$I_C = 10\mu A, I_E = 0$	100			V
Collector to emitter voltage	V_{CEO}	$I_C = 1mA, I_B = 0$	100			V
Emitter to base voltage	V_{EBO}	$I_E = 10\mu A, I_C = 0$	15			V
Collector cutoff current	I_{CBO}	$V_{CB} = 60V, I_E = 0$			0.1	μA
	I_{CEO}	$V_{CE} = 60V, I_B = 0$			1.0	μA
Forward current transfer ratio	h_{FE}	$V_{CE} = 10V, I_C = 2mA$	400		2000	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10mA, I_B = 1mA$		0.05	0.2	V
Noise voltage	NV	$V_{CE} = 10V, I_C = 1mA, G_V = 80dB$ $R_g = 100K\Omega, \text{Function} = \text{FLAT}$		80		mV
Transition frequency	f_T	$V_{CB} = 10V, I_E = -2mA, f = 200MHz$		150		MHz

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

$P_T - T_a$  $I_C - V_{CE}$  $I_C - V_{BE}$  $V_{CE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CB}$  $NV - I_C$  $NV - V_{CE}$ 

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