XN0F256

Silicon NPN epitaxial planar transistor

For muting circuits

■ Features

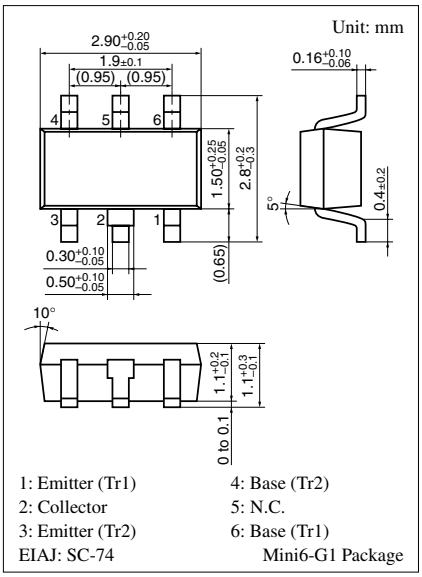
- Two elements incorporated into one package (Collector-coupled transistors with built-in resistor)
- Reduction of the mounting area and assembly cost by one half

■ Basic Part Number of Element

- UNR2226 (UN2226) × 2 elements

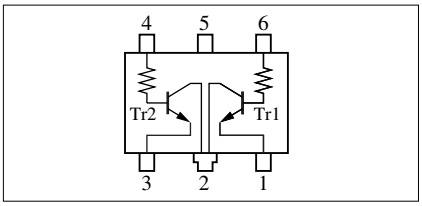
■ Absolute Maximum Ratings $T_a = 25°C$

Parameter		Symbol	Rating	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	600	mA
Total	Total power dissipation	P_T	300	mW
	Junction temperature	T_j	150	°C
	Storage temperature	T_{stg}	−55 to +150	°C



Marking Symbol: 6A

Internal Connection

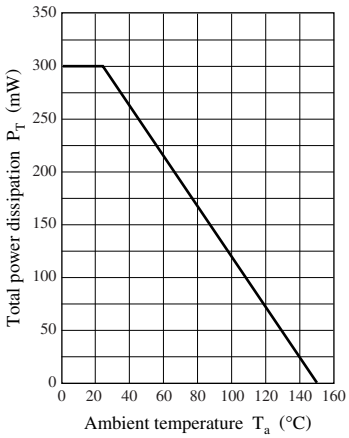


■ Electrical Characteristics $T_a = 25°C \pm 3°C$

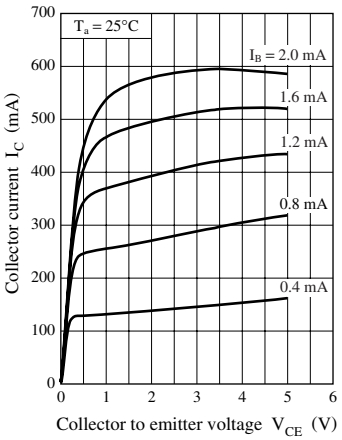
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector to base voltage	V_{CBO}	I_C = 1 µA, I_E = 0	30			V
Collector to emitter voltage	V_{CEO}	I_C = 1 mA, I_B = 0	20			V
Emitter to base voltage	V_{EBO}	I_E = 1 µA, I_C = 0	5			V
Collector cutoff current	I_{CBO}	V_{CB} = 30 V, I_E = 0			1	µA
Emitter cutoff current	I_{EBO}	V_{EB} = 5 V, I_C = 0			1	µA
Forward current transfer ratio	h_{FE}	V_{CE} = 5 V, I_C = 50 mA	100		600	—
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = 50 mA, I_B = 2.5 mA			80	mV
Input resistance	R_1		−30%	4.7	+30%	kΩ
Gain bandwidth product	f_T	V_{CB} = 10 V, I_E = −50 mA, f = 200 MHz		200		MHz

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

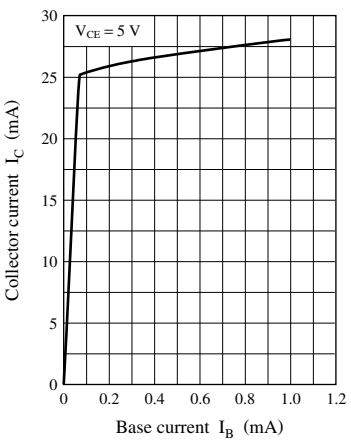
P_T — T_a



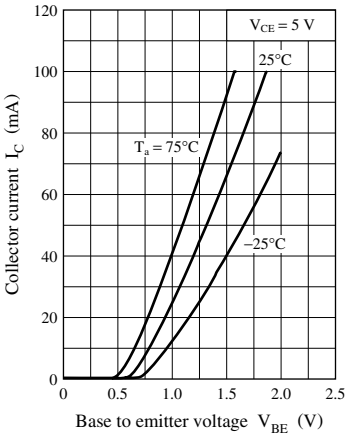
I_C — V_{CE}



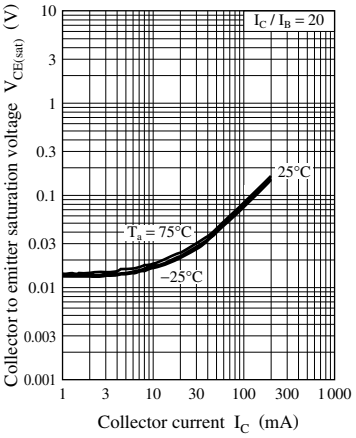
I_C — I_B



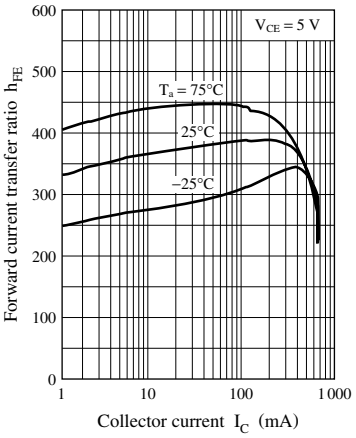
I_C — V_{BE}



$V_{CE(sat)}$ — I_C



h_{FE} — I_C



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