DSA2005

Silicon PNP epitaxial planar type

For general amplification
Complementary to DSC2005

■ Features

- High forward current transfer ratio h_{FE} with excellent linearity
- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

■ Packaging

Embossed type (Thermo-compression sealing): 3000 pcs / reel (standard)

■ Package

- Code
  Mini3-G3-B
- Pin Name
  1. Base
  2. Emitter
  3. Collector

■ Marking Symbol: A3

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	–60	V
Collector-emitter voltage (Base open)	V_{CEO}	–50	V
Emitter-base voltage (Collector open)	V_{EBO}	–6	V
Collector current	I_C	–200	mA
Peak collector current	I_{CP}	–300	mA
Collector power dissipation	P_C	200	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	–55 to +150	°C

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

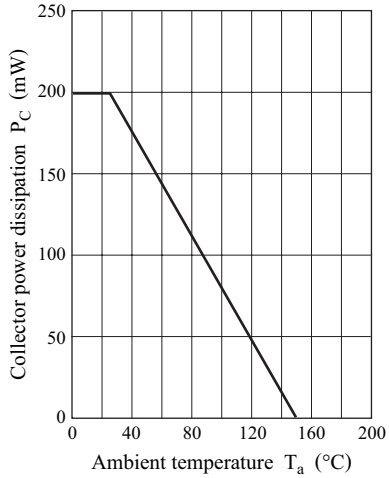
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -100\ \mu A$, $I_B = 0$	–50			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -60$ V, $I_E = 0$			– 0.1	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = -6$ V, $I_C = 0$			– 0.1	μA
Forward current transfer ratio	h_{FE1} *	$V_{CE} = -6$ V, $I_C = -1$ mA	150		390	—
	h_{FE2}	$V_{CE} = -6$ V, $I_C = -0.1$ mA	90			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100$ mA, $I_B = -10$ mA			– 0.3	V
Transition frequency	f_T	$V_{CE} = -6$ V, $I_C = -10$ mA		150		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -6$ V, $I_E = 0$, f = 1 MHz		5.0		pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

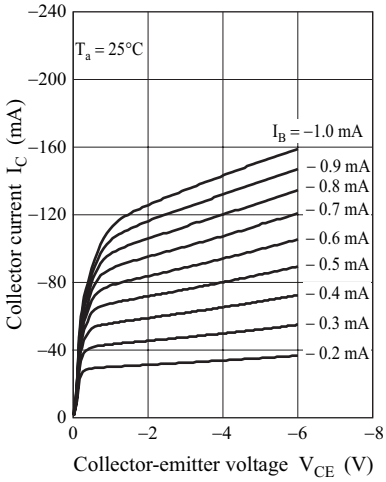
Code	R	S	0
Rank	R	S	No-rank
h_{FE1}	150 to 270	200 to 390	150 to 390
Marking Symbol	A3R	A3S	A3

Product of no-rank is not classified and have no marking symbol for rank.

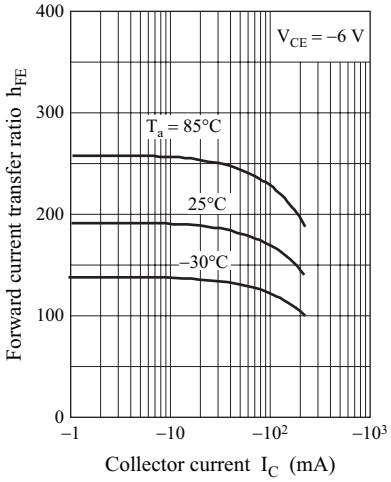
P_C — T_a



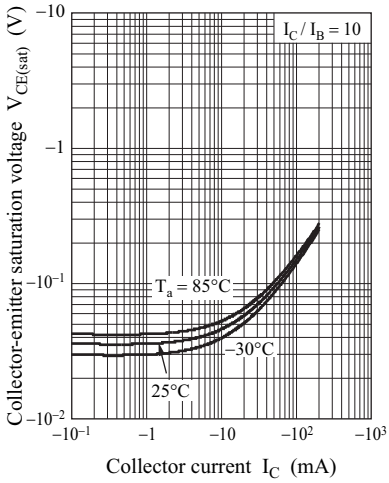
I_C — V_{CE}



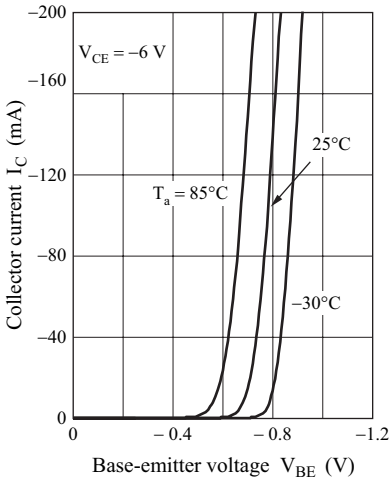
h_{FE} — I_C



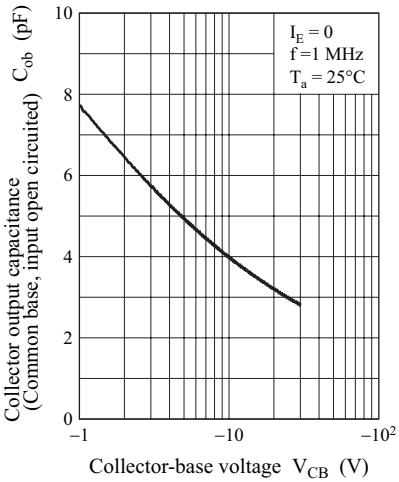
$V_{CE(sat)}$ — I_C



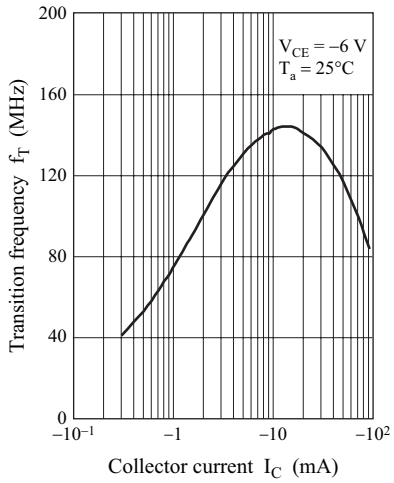
I_C — V_{BE}



C_{ob} — V_{CB}

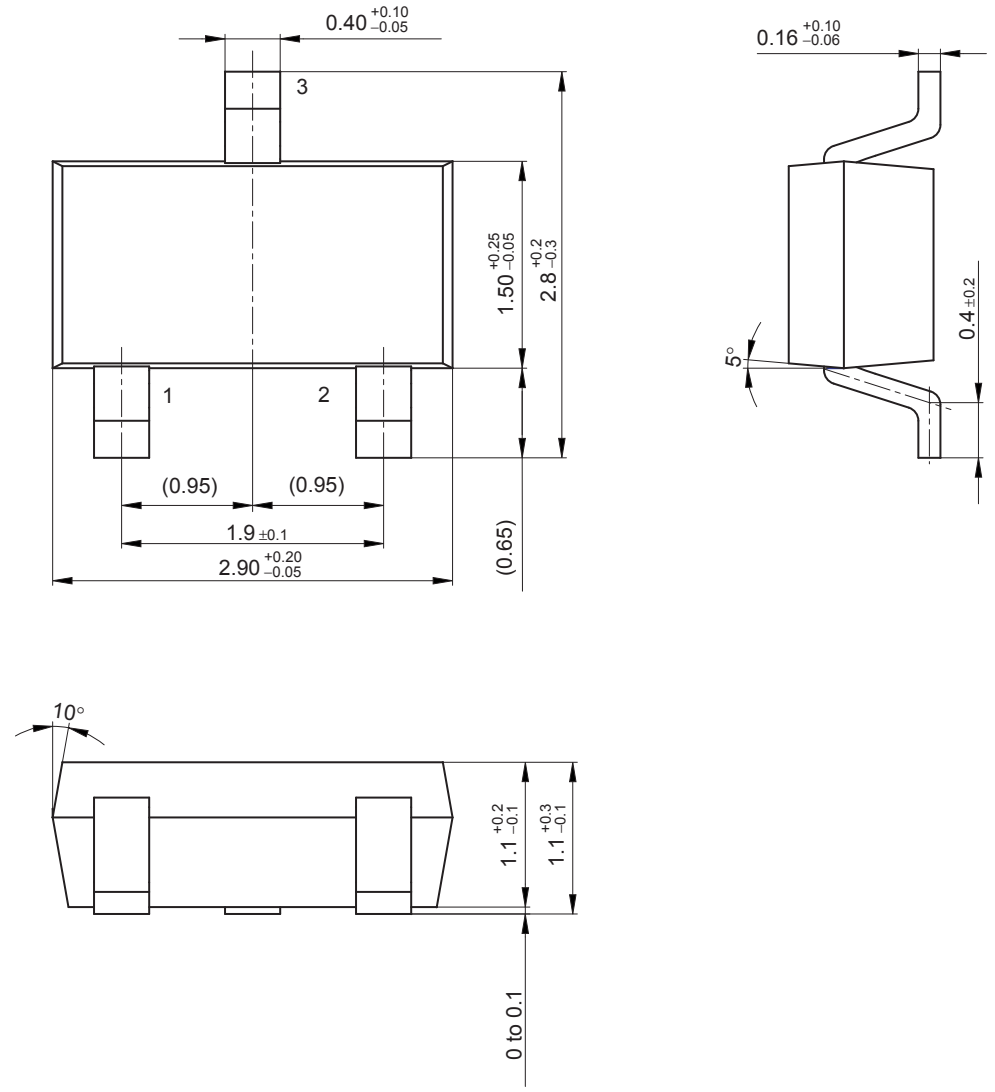


f_T — I_C



Mini3-G3-B

Unit: mm



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