DMA50101

Silicon PNP epitaxial planar type

For general amplification
DMA20101 in SMini5 type package

■ 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

■ Basic Part Number

Dual DSA2001 (Common emitter)

■ Packaging

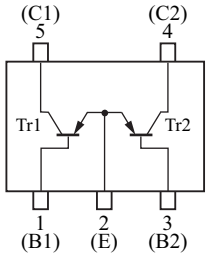
Embossed type (Thermo-compression sealing): 3000 pcs / reel (standard)

■ Package

- Code
  SMini5-F3-B
- Pin Name
  1: Base (Tr1) 4: Collector (Tr2)
  2: Emitter (Common) 5: Collector (Tr1)
  3: Base (Tr2)

■ Marking Symbol: A0

■ Internal Connection



■ Absolute Maximum Ratings $T_a = 25°C$

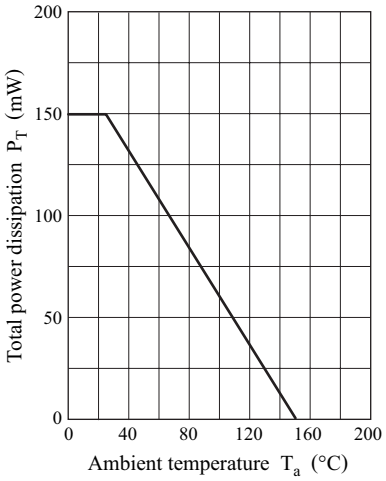
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	–60	V
Collector-emitter voltage (Base open)	V_{CEO}	–50	V
Emitter-base voltage (Collector open)	V_{EBO}	–7	V
Collector current	I_C	–100	mA
Peak collector current	I_{CP}	–200	mA
Total power dissipation	P_T	150	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	–55 to +150	°C

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

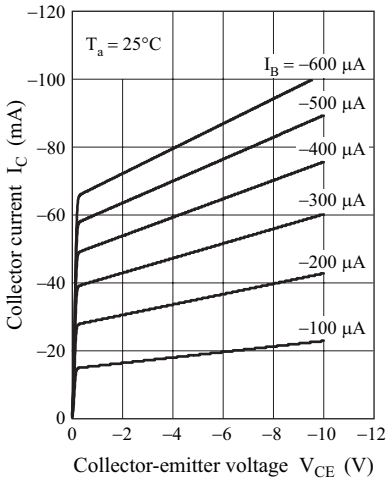
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10$ μA, $I_E = 0$	–60			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -2$ mA, $I_B = 0$	–50			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10$ μA, $I_C = 0$	–7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -20$ V, $I_E = 0$			– 0.1	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -10$ V, $I_B = 0$			–100	μA
Forward current transfer ratio	h_{FE}	$V_{CE} = -10$ V, $I_C = -2$ mA	210		460	—
h_{FE} ratio *	h_{FE} (Small/Large)	$V_{CE} = -10$ V, $I_C = -2$ mA	0.50	0.99		—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100$ mA, $I_B = -10$ mA		– 0.2	– 0.5	V
Transition frequency	f_T	$V_{CE} = -10$ V, $I_C = -2$ mA		150		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10$ V, $I_E = 0$, f = 1 MHz		2		pF

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

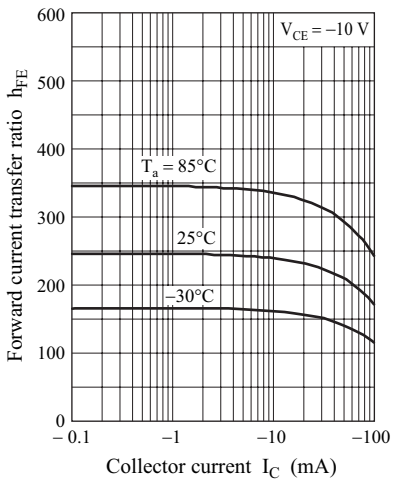
P_T — T_a



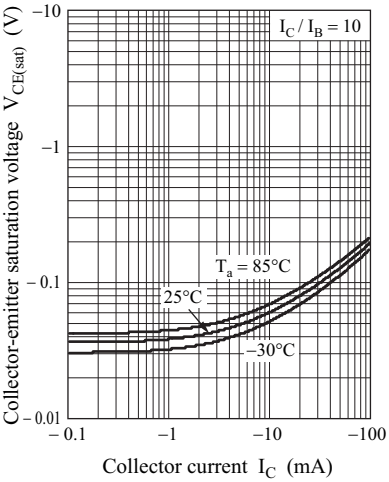
I_C — V_{CE}



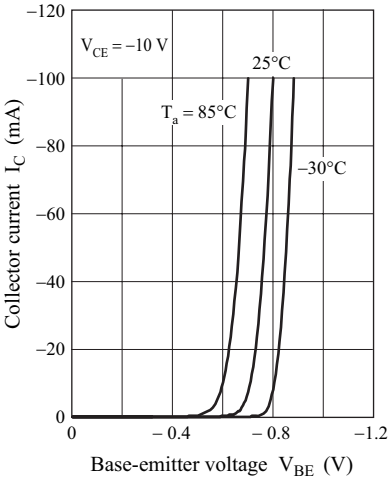
h_{FE} — I_C



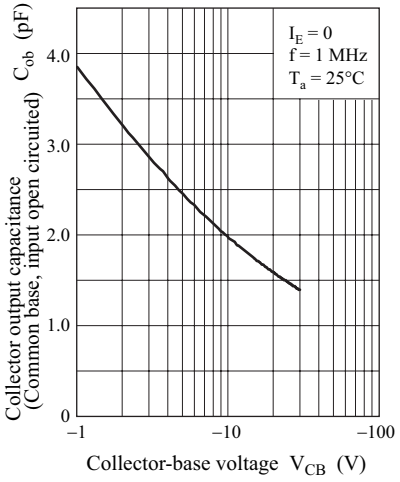
$V_{CE(sat)}$ — I_C



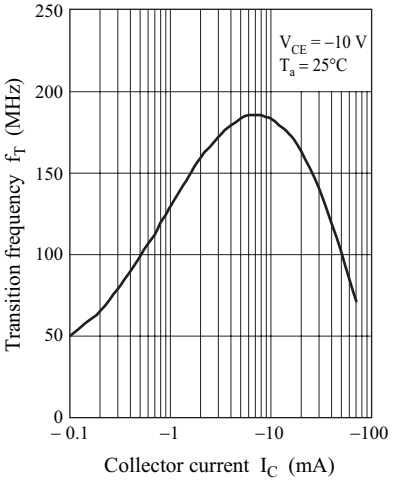
I_C — V_{BE}



C_{ob} — V_{CB}

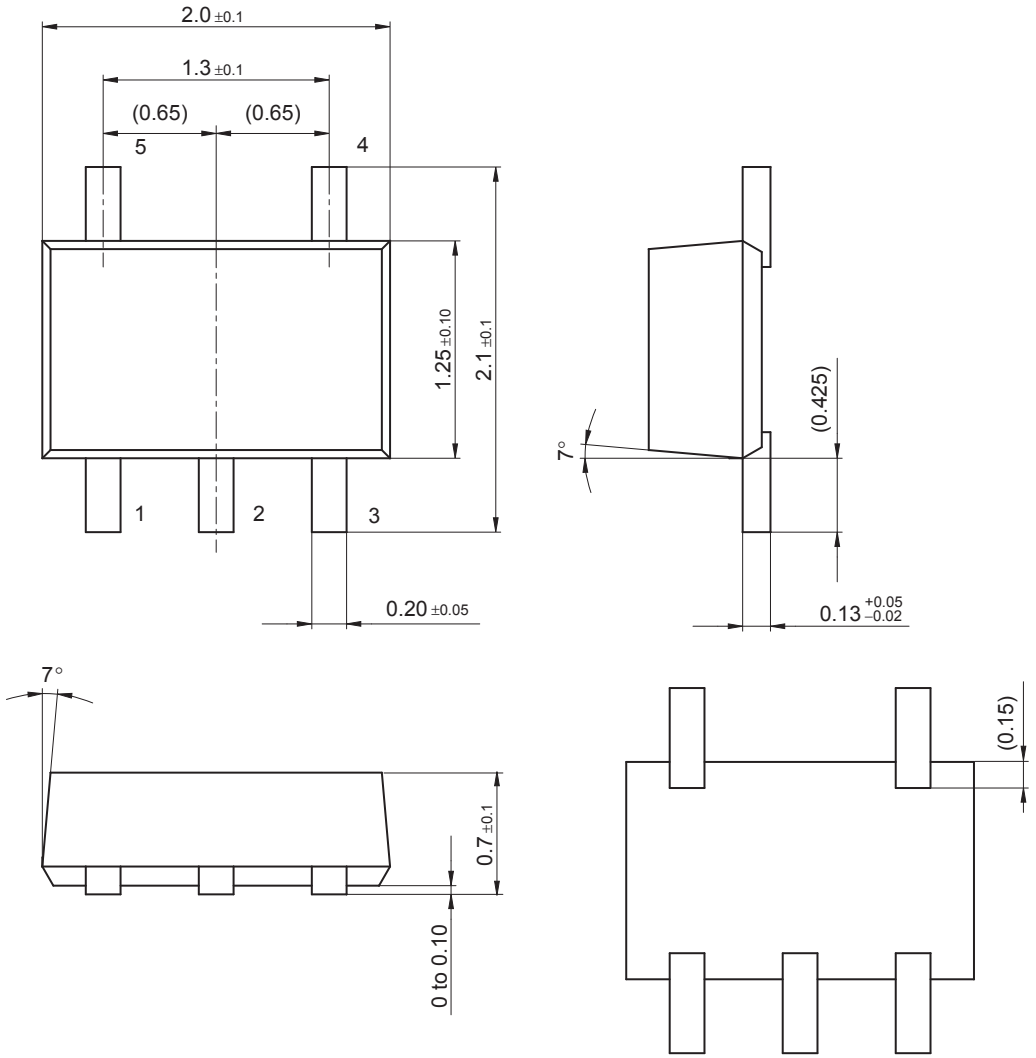


f_T — I_C



SMini5-F3-B

Unit: mm



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