DMC9610M

Silicon NPN epitaxial planar type

For digital circuits
DMC5610M in SSMini5 type package

■ Features

- 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 DRC2123J (Common emitter)

■ Packaging

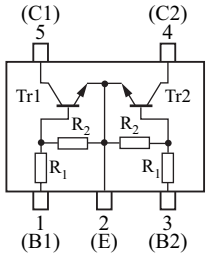
Embossed type (Thermo-compression sealing): 8000 pcs / reel (standard)

■ Package

- Code
  SSMini5-F4-B
- Pin Name
  1: Base (Tr1) 4: Collector (Tr2)
  2: Emitter (Common) 5: Collector (Tr1)
  3: Base (Tr2)

■ Marking Symbol: S2

■ Internal Connection



Resistance value	R_1	2.2	kΩ
	R_2	47	

■ Absolute Maximum Ratings $T_a = 25°C$

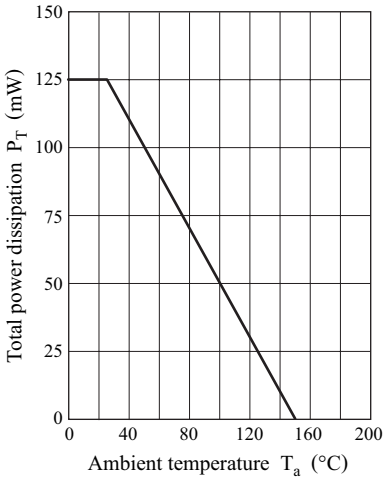
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	50	V
Collector-emitter voltage (Base open)	V_{CEO}	50	V
Collector current	I_C	100	mA
Total power dissipation	P_T	125	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	–55 to +150	°C

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

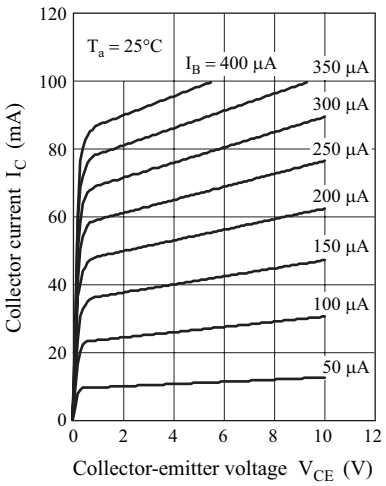
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = 10\ \mu A$, $I_E = 0$	50			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 2$ mA, $I_B = 0$	50			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 50$ V, $I_E = 0$			0.1	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = 50$ V, $I_B = 0$			0.5	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 6$ V, $I_C = 0$			0.2	mA
Forward current transfer ratio	h_{FE}	$V_{CE} = 10$ V, $I_C = 5$ mA	80			—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10$ mA, $I_B = 0.5$ mA			0.25	V
Input voltage (ON)	$V_{I(on)}$	$V_{CE} = 0.2$ V, $I_C = 5$ mA	1.2			V
Input voltage (OFF)	$V_{I(off)}$	$V_{CE} = 5$ V, $I_C = 100\ \mu A$			0.4	V
Input resistance	R_1		–30%	2.2	+30%	kΩ
Resistance ratio	R_1 / R_2		0.037	0.047	0.057	—

Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

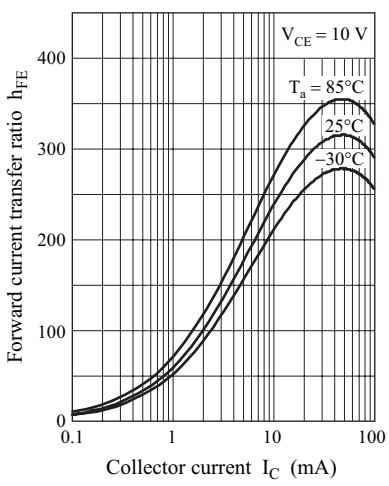
P_T — T_a



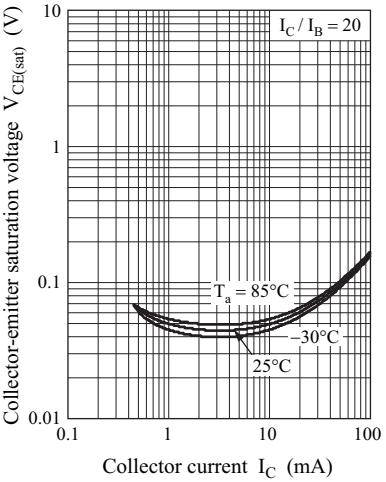
I_C — V_{CE}



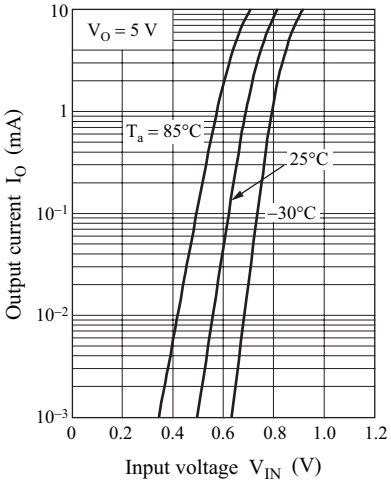
h_{FE} — I_C



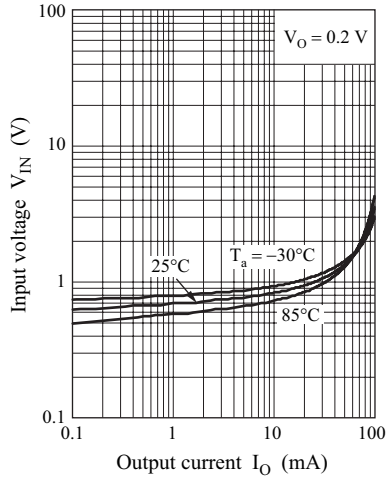
$V_{CE(sat)}$ — I_C



I_O — V_{IN}

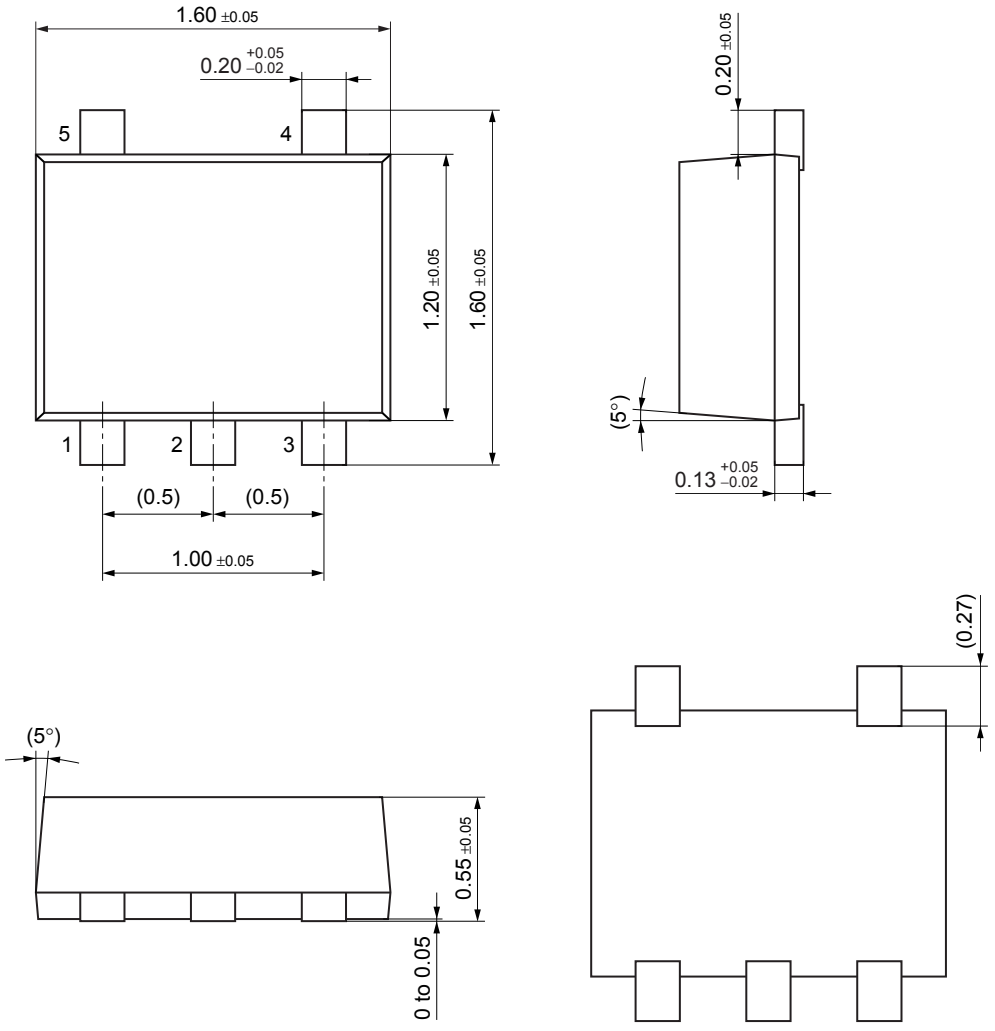


V_{IN} — I_O



SSMini5-F4-B

Unit: mm



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