DMC20201

Silicon NPN epitaxial planar type

For general amplification

■ Features

- High forward current transfer ratio h_{FE} with excellent linearity
- ullet Low collector-emitter saturation voltage $V_{\text{CE(sat)}}$
- Halogen-free / RoHS compliant
 (EU RoHS / UL-94 V-0 / MSL: Level 1 compliant)

■ Marking Symbol: A6

■ Basic Part Number

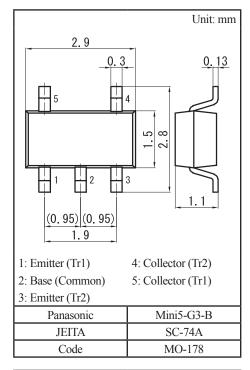
Dual DSC2001 (Common base)

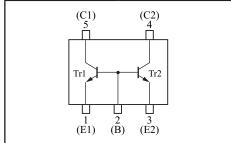
Packaging

DMC202010R Embossed type (Thermo-compression sealing): 3 000 pcs / reel (standard)

■ Absolute Maximum Ratings $T_a = 25$ °C

	Parameter	Symbol	Rating	Unit
Tr1 Tr2	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
Overall	Total power dissipation	P _T	300	mW
	Junction temperature	T _j	150	°C
	Operating ambient temperature	T _{opr} -40 to +85		°C
	Storage temperature	T _{stg}	-55 to +150	°C



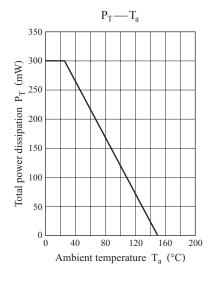


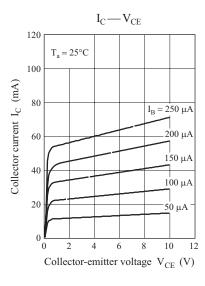
■ Electrical Characteristics $T_a = 25$ °C±3°C

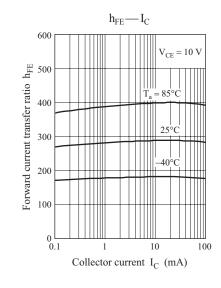
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_C = 10 \mu A, I_E = 0$	60			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = 2 \text{ mA}, I_B = 0$	50			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 10 \mu A, I_C = 0$	7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{\rm CB} = 20 \text{ V}, I_{\rm E} = 0$			0.1	μΑ
Collector-emitter cutoff current (Base open)	I _{CEO}	$V_{CE} = 10 \text{ V}, I_{B} = 0$			100	μΑ
Forward current transfer ratio	h_{FE}	$V_{CE} = 10 \text{ V}, I_{C} = 2 \text{ mA}$	210		460	_
h _{FE} ratio *1	h _{FE} (Small/Large)	$V_{CE} = 10 \text{ V}, I_{C} = 2 \text{ mA}$	0.50	0.99		
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = 100 \text{ mA}, I_B = 10 \text{ mA}$		0.13	0.3	V
Transition frequency	f_T	$V_{CE} = 10 \text{ V}, I_{C} = 2 \text{ mA}$		150		MHz
Collector output capacitance (Common base, input open circuited)	C _{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		1.5		pF

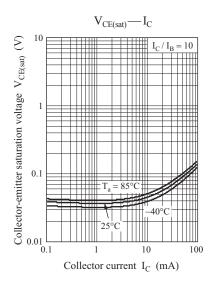
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

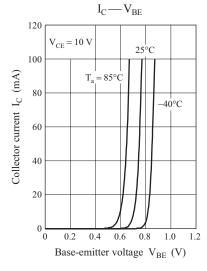
2. *1: Ratio between 2 elements

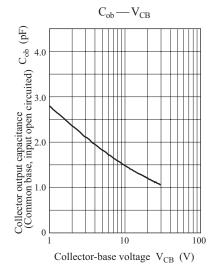


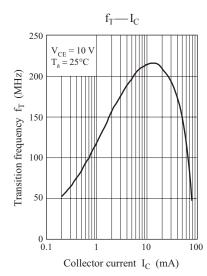








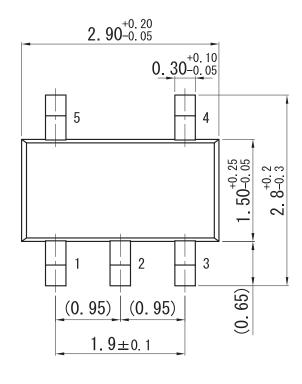


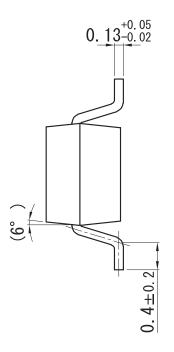


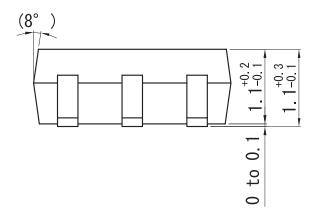
Ver. EED 2

Mini5-G3-B

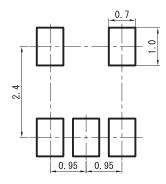
Unit: mm







■ Land Pattern (Reference) (Unit: mm)



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