DSA5002

Silicon PNP epitaxial planar type

For general amplification Complementary to DSC5002 DSA2002 in SMini3 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

Packaging

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

■ 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}	-5	V	
Collector current	I_{C}	-500	mA	
Peak collector current	I_{CP}	-1	A	
Collector power dissipation	$P_{\rm C}$	150	mW	
Junction temperature	T_j	150	°C	
Storage temperature	T _{stg}	-55 to +150	°C	

■ Package

• Code SMini3-F2-B

• Pin Name

- 1. Base
- 2. Emitter
- 3. Collector
- Marking Symbol: A2

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

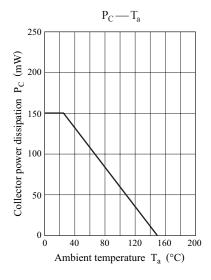
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_{\rm C} = -10 \ \mu A, I_{\rm E} = 0$	-60			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = -2 \text{ mA}, I_B = 0$	-50			V
Emitter-base voltage (Collector open)	V _{EBO}	$I_E = -10 \mu\text{A}, I_C = 0$	-5			V
Collector-base cutoff current (Emitter open)	I _{CBO}	$V_{CB} = -20 \text{ V}, I_E = 0$			-0.1	μА
Forward current transfer ratio *1	h _{FE1} *2	$V_{CE} = -10 \text{ V}, I_{C} = -150 \text{ mA}$	120		340	
	h _{FE2}	$V_{CE} = -10 \text{ V}, I_{C} = -500 \text{ mA}$	40			
Collector-emitter saturation voltage *1	V _{CE(sat)}	$I_C = -300 \text{ mA}, I_B = -30 \text{ mA}$		-0.2	-0.6	V
Base-emitter saturation voltage *1	V _{BE(sat)}	$I_C = -300 \text{ mA}, I_B = -30 \text{ mA}$		- 0.9	-1.5	V
Transition frequency	f_T	$V_{CE} = -10 \text{ V}, I_{C} = -50 \text{ mA}$		130		MHz
Collector output capacitance (Common base, input open circuited)	C _{ob}	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		7.3	15	pF

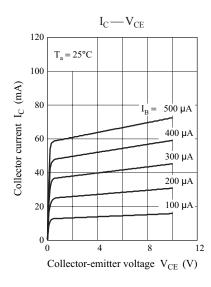
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

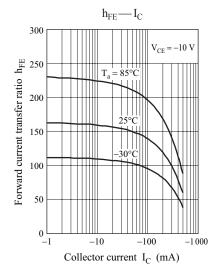
- 2. *1: Pulse measurement
 - *2: Rank classification

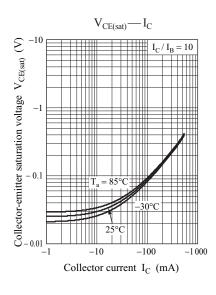
Code	R	S	0	
Rank	R	S	No-rank	
h_{FE1}	120 to 240	170 to 340	120 to 340	
Marking Symbol	A2R	A2S	A2	

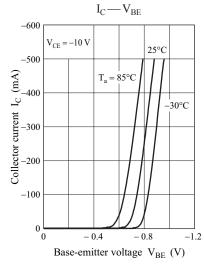
Product of no-rank is not classified and have no marking symbol for rank.

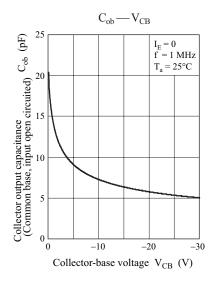


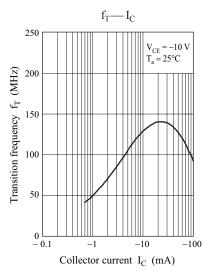








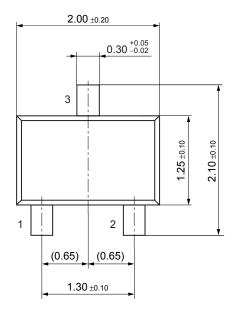


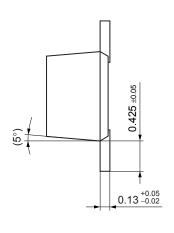


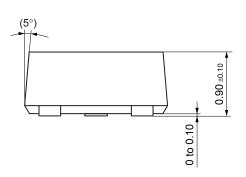
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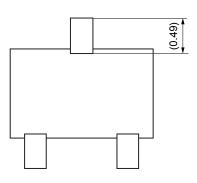
SMini3-F2-B

Unit: mm









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