2SB0642 (2SB642)

Silicon PNP epitaxial planar type

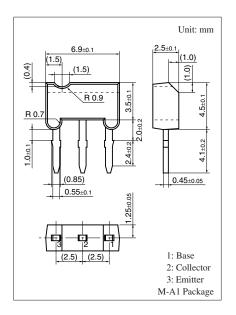
For low-power general amplification

■ Features

- High forward current transfer ratio hFE
- M type package allowing easy automatic and manual insertion as well as stand-alone fixing to the printed circuit board.

■ 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	
Collector power dissipation	P _C	400	mW	
Junction temperature	T_{j}	150	°C	
Storage temperature	T_{stg}	-55 to +150	°C	



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

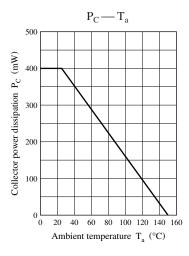
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_C = -10 \ \mu A, I_E = 0$	-60			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = -2 \text{ mA}, I_B = 0$	-50			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10 \mu A, I_C = 0$	-7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -20 \text{ V}, I_{E} = 0$			-1	μΑ
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -20 \text{ V}, I_B = 0$			-1	μΑ
Forward current transfer ratio *	h_{FE}	$V_{CE} = -10 \text{ V}, I_{C} = -2 \text{ mA}$	160		460	_
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = -100 \text{ mA}, I_B = -10 \text{ mA}$			-1	V
Transition frequency	f_T	$V_{CB} = -10 \text{ V}, I_E = 2 \text{ mA}, f = 200 \text{ MHz}$		80		MHz
Collector output capacitance (Common-emitter reverse transfer)	C _{ob}	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		3.5		pF

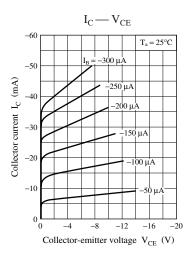
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

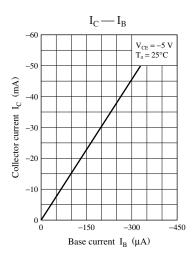
2. *: Rank classification

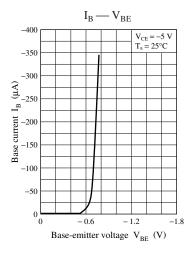
Rank	Q	R	S
h _{FE1}	160 to 260	210 to 340	290 to 460

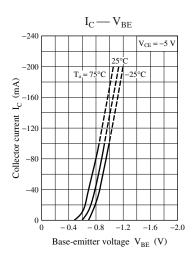
Note) The part number in the parenthesis shows conventional part number.

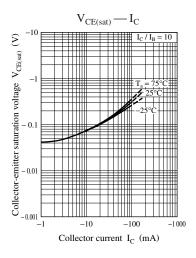


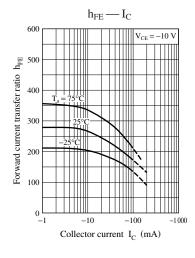


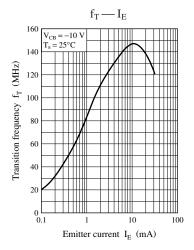


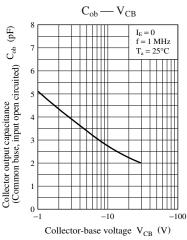


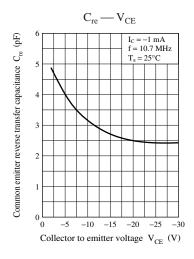


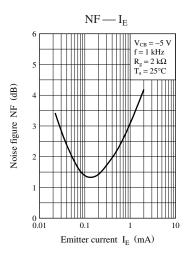


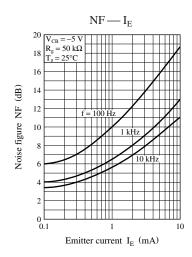


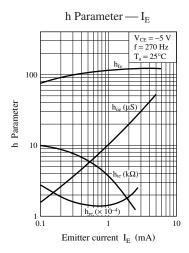


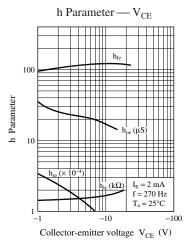


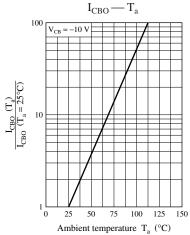












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