

2SB788

Silicon PNP epitaxial planer type

For high breakdown voltage low-noise amplification

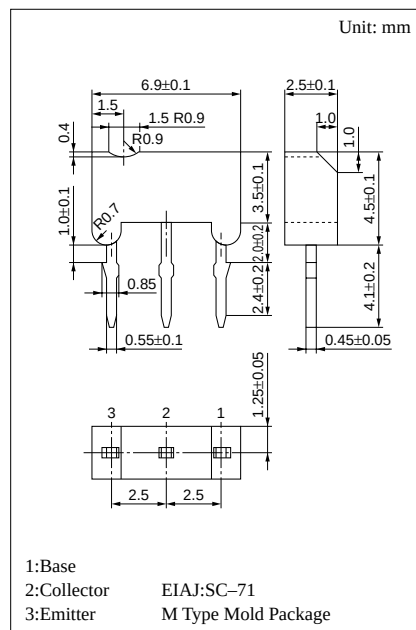
Complementary to 2SD958

Features

- High collector to emitter voltage V_{CEO} .
- Low noise voltage NV.
- M type package allowing easy automatic and manual insertion as well as stand-alone fixing to the printed circuit board.

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-120	V
Collector to emitter voltage	V_{CEO}	-120	V
Emitter to base voltage	V_{EBO}	-7	V
Peak collector current	I_{CP}	-50	mA
Collector current	I_C	-20	mA
Collector power dissipation	P_C	400	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

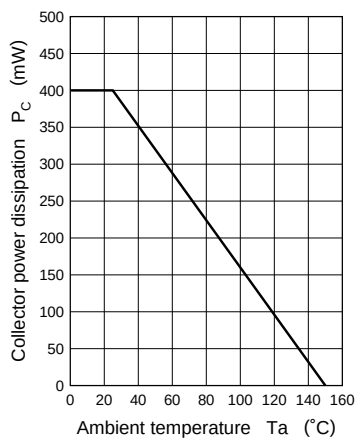
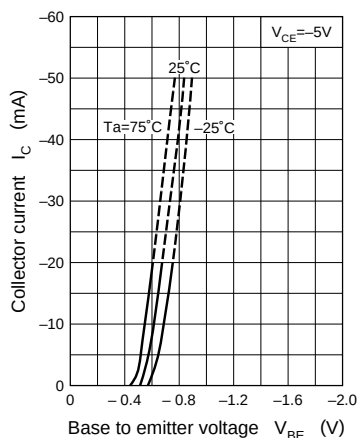
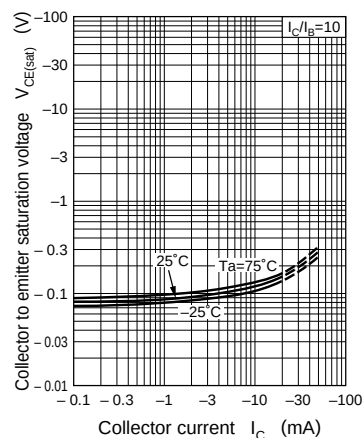
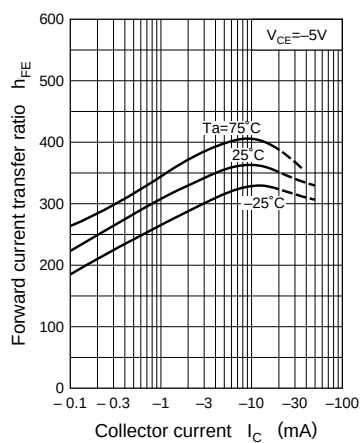
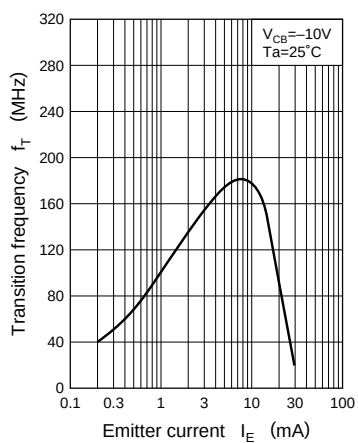
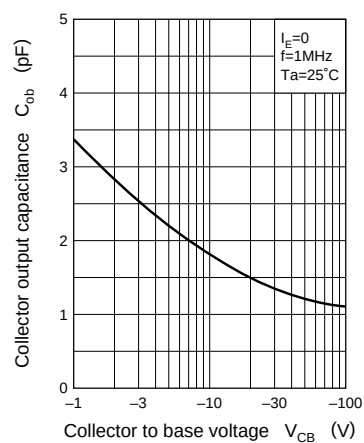


Electrical Characteristics ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -50\text{V}, I_E = 0$			-100	nA
	I_{CEO}	$V_{CE} = -50\text{V}, I_B = 0$			-1	μA
Collector to base voltage	V_{CBO}	$I_C = -10\mu\text{A}, I_E = 0$	-120			V
Collector to emitter voltage	V_{CEO}	$I_C = -1\text{mA}, I_B = 0$	-120			V
Emitter to base voltage	V_{EBO}	$I_E = -10\mu\text{A}, I_C = 0$	-7			V
Forward current transfer ratio	h_{FE}^*	$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	180		700	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -20\text{mA}, I_B = -2\text{mA}$			-0.6	V
Transition frequency	f_T	$V_{CB} = -5\text{V}, I_E = 2\text{mA}, f = 200\text{MHz}$		150		MHz
Noise voltage	NV	$V_{CE} = 40\text{V}, I_C = -1\text{mA}, G_v = 80\text{dB}, R_g = 100\text{k}\Omega, \text{Function} = \text{FLAT}$			150	mV

* h_{FE} Rank classification

Rank	R	S	T
h_{FE}	180 ~ 360	260 ~ 520	360 ~ 700

$P_C - T_a$  $I_C - V_{BE}$  $V_{CE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CB}$  $NV - I_C$ 