

# 2SB0790 (2SB790)

## Silicon PNP epitaxial planar type

For low-frequency output amplification

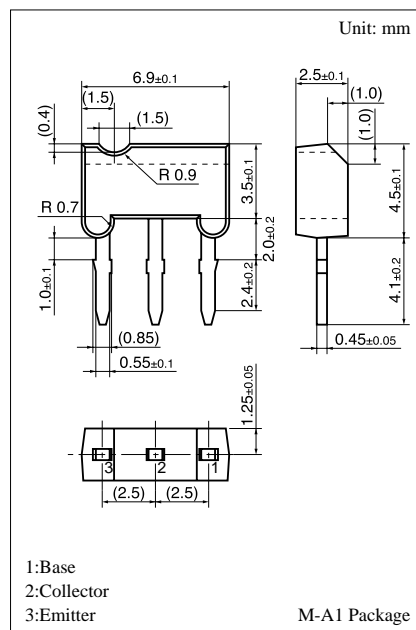
Complementary to 2SD0969 (2SD969)

### Features

- Low collector to emitter saturation voltage  $V_{CE(sat)}$
- M type package allowing easy automatic and manual insertion as well as stand-alone fixing to the printed circuit board.

### Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	-25	V
Collector to emitter voltage	$V_{CEO}$	-20	V
Emitter to base voltage	$V_{EBO}$	-7	V
Peak collector current	$I_{CP}$	-1	A
Collector current	$I_C$	-0.5	A
Collector power dissipation	$P_C$	600	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 ~ +150	°C



### Electrical Characteristics (Ta=25°C)

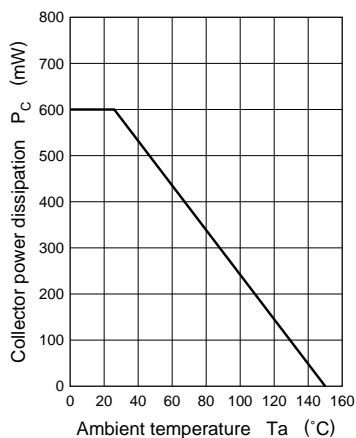
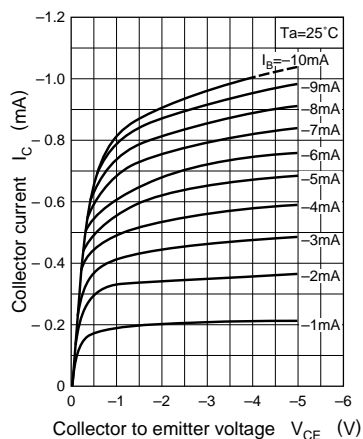
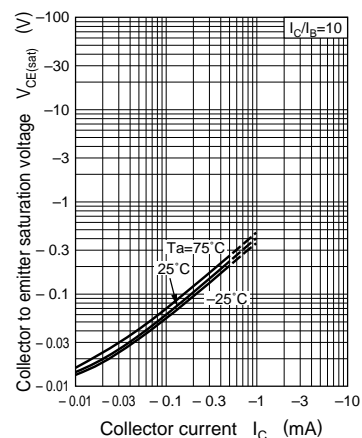
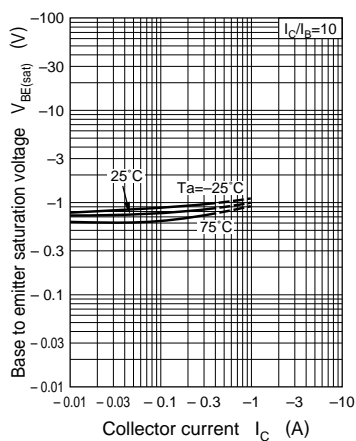
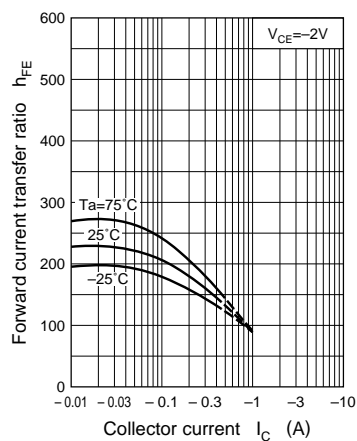
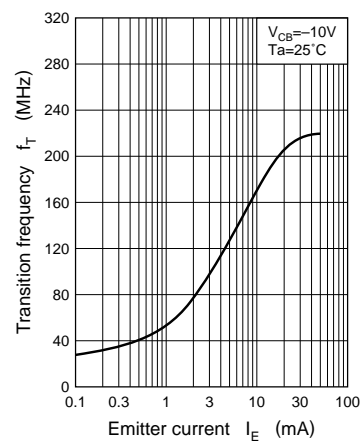
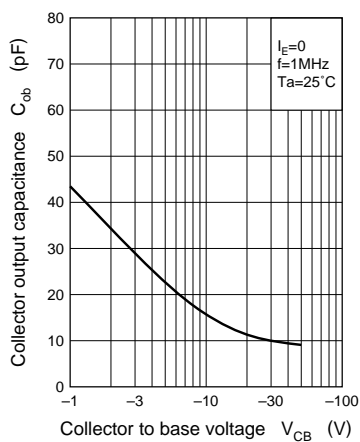
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -25V, I_E = 0$			-100	nA
	$I_{CEO}$	$V_{CE} = -20V, I_B = 0$			-1	μA
Collector to base voltage	$V_{CBO}$	$I_C = -10\mu A, I_E = 0$	-25			V
Collector to emitter voltage	$V_{CEO}$	$I_C = -1mA, I_B = 0$	-20			V
Emitter to base voltage	$V_{EBO}$	$I_C = -10\mu A, I_C = 0$	-7			V
Forward current transfer ratio	$h_{FE1}^{*1}$	$V_{CE} = -2V, I_C = -0.5A^{*2}$	90		220	
	$h_{FE2}$	$V_{CE} = -2V, I_C = -1A^{*2}$	25			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA^{*2}$			-0.4	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500mA, I_B = -50mA^{*2}$			-1.2	V
Transition frequency	$f_T$	$V_{CB} = -10V, I_E = 50mA, f = 200MHz$		150		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$		15	25	pF

<sup>\*2</sup> Pulse measurement

<sup>\*1</sup> $h_{FE1}$  Rank classification

Rank	Q	R
$h_{FE1}$	90 ~ 155	130 ~ 220

Note.) The Part number in the Parenthesis shows conventional part number.

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

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