2SD789

Silicon NPN Epitaxial

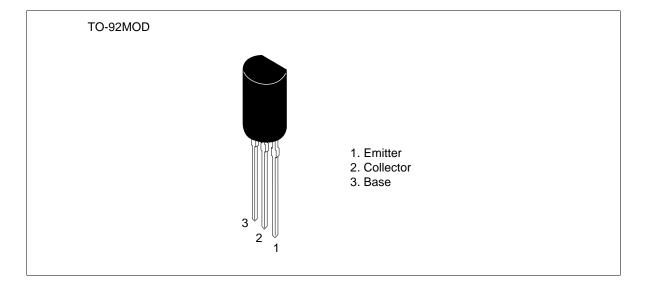
HITACHI

ADE-208-1140A (Z) 2nd. Edition Mar. 2001

Application

- Low frequency power amplifier
- Complementary pair with 2SB740

Outline





2SD789

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

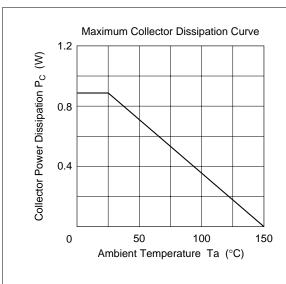
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	100	V
Collector to emitter voltage	V_{CEO}	50	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I _c	1	A
Collector power dissipation	P _c	0.9	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

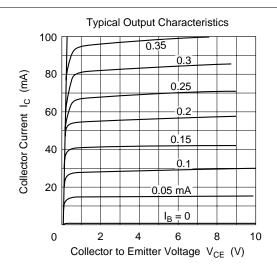
Electrical Characteristics ($Ta = 25^{\circ}C$)

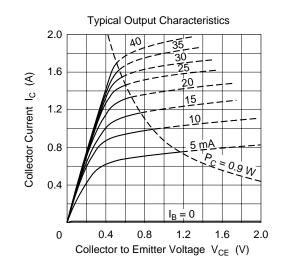
Item	Symbol	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	100	_	_	V	$I_{c} = 10 \ \mu A, \ I_{E} = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	50	_	_	V	I_{C} = 1 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	_	_	V	$I_{E} = 10 \ \mu A, \ I_{C} = 0$
Collector cutoff current	I _{CBO}	_	_	1	μΑ	$V_{CB} = 80 \text{ V}, I_{E} = 0$
Emitter cutoff current	I _{EBO}	_	_	0.2	μΑ	$V_{EB} = 6 \text{ V}, I_{C} = 0$
DC current transfer ratio	h _{FE} *1	100	_	800		$V_{CE} = 2 \text{ V}, I_{C} = 0.1 \text{A}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	_	_	0.3	V	$I_{\rm C} = 1 \text{ A}, I_{\rm B} = 0.1 \text{ A}$
Gain bandwidth product	f _T		100		MHz	$V_{CE} = 2 \text{ V}, I_{C} = 10 \text{ mA}$
Collector output capacitance	Cob	_	20		pF	$V_{CB} = 10 \text{ V}, I_{E} = 0, f = 1 \text{MHz}$

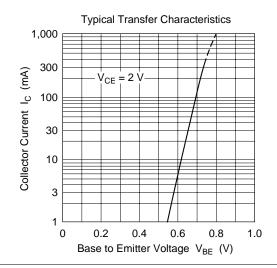
Note: 1. The 2SD789 is grouped by h_{FE} as follows.

В	С	D	E
100 to 200	160 to 320	250 to 500	400 to 800

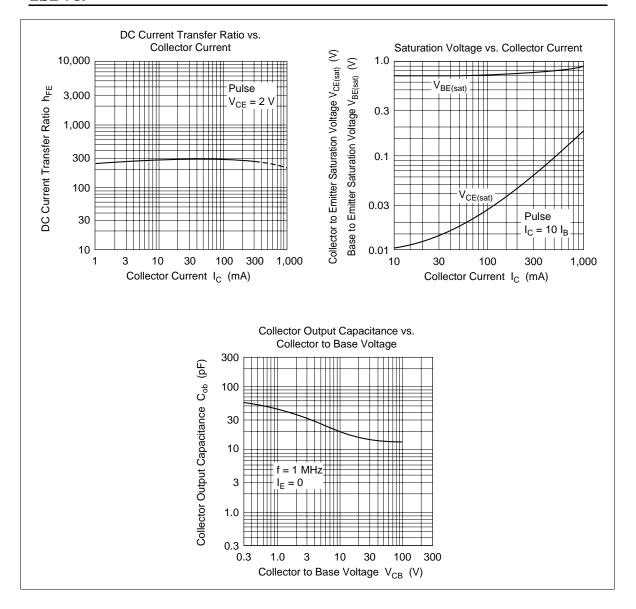




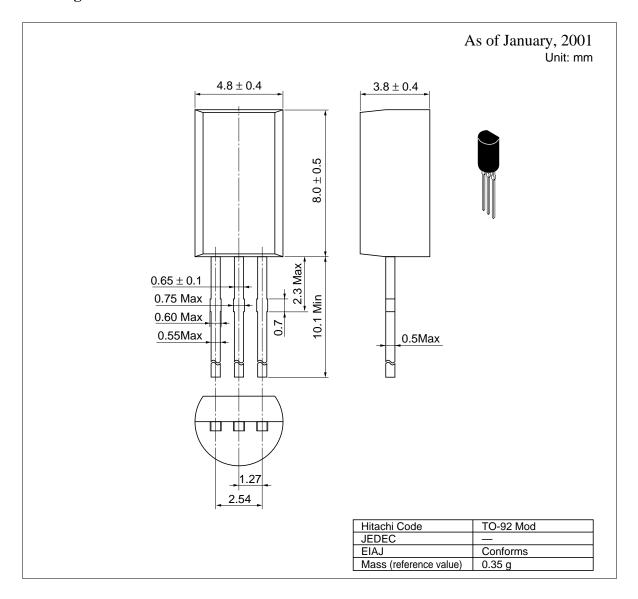




2SD789



Package Dimensions



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