

2SD1922

Silicon NPN Epitaxial

HITACHI

ADE-208-1160 (Z)

1st. Edition

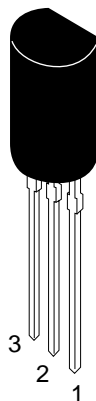
Mar. 2001

Application

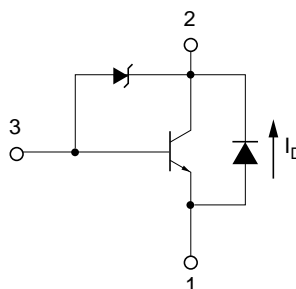
Low frequency power amplifier

Outline

TO-92MOD



- 1. Emitter
- 2. Collector
- 3. Base



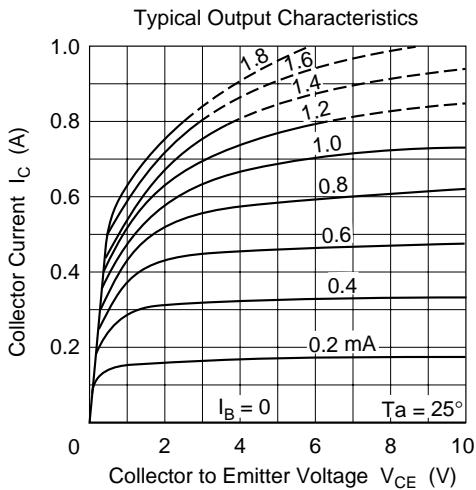
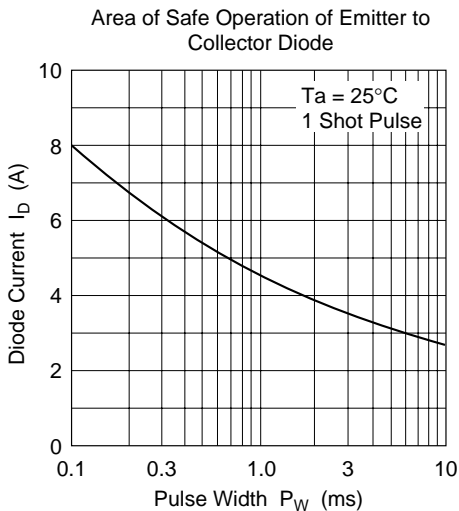
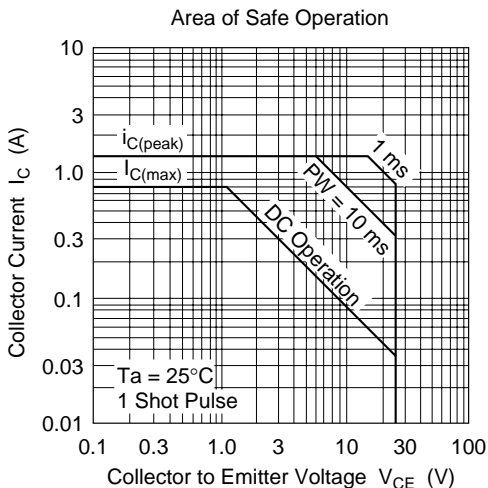
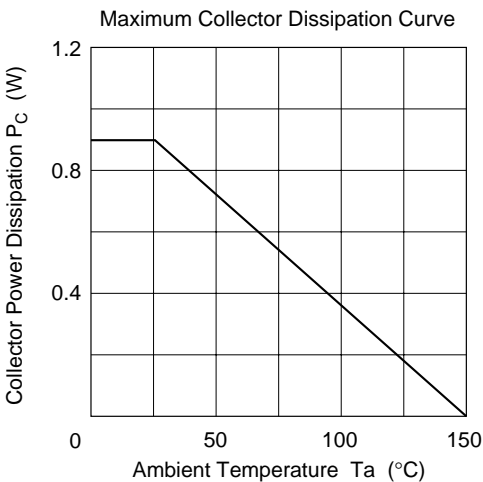
Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	25	V
Collector to emitter voltage	V_{CEO}	25	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I_C	0.8	A
Collector peak current	$i_{c\text{ (peak)}}$	1.5	A
E to C diode forward current	I_D	0.8	A
Collector power dissipation	P_C	0.9	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

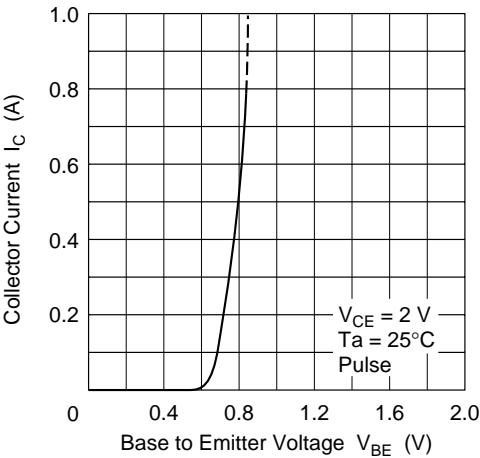
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	25	—	—	V	$I_C = 10\text{ }\mu\text{A}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	25	—	35	V	$I_C = 1\text{ mA}$, $R_{BE} = \infty$
Collector to emitter sustaining voltage	$V_{CEO(sus)}$	25	—	35	V	$I_C = 0.8\text{ A}$, $R_{BE} = \infty$, $L = 20\text{ mH}$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	$I_E = 10\text{ }\mu\text{A}$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	0.2	μA	$V_{CB} = 20\text{ V}$, $I_E = 0$
	I_{CEO}	—	—	0.5	μA	$V_{CE} = 20\text{ V}$, $R_{BE} = \infty$
Emitter cutoff current	I_{EBO}	—	—	0.2	μA	$V_{EB} = 5\text{ V}$, $I_C = 0$
DC current transfer ratio	h_{FE}	250	—	1200		$V_{CE} = 2\text{ V}$, $I_C = 0.1\text{ A}^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.3	V	$I_C = 0.8\text{ A}$, $I_B = 80\text{ mA}^{*1}$
E to C diode forward voltage	V_D	—	—	1.1	V	$I_D = 0.8\text{ A}^{*1}$

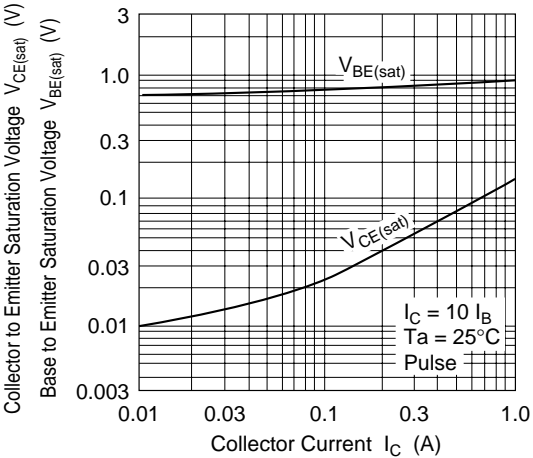
Note: 1. Pulse test



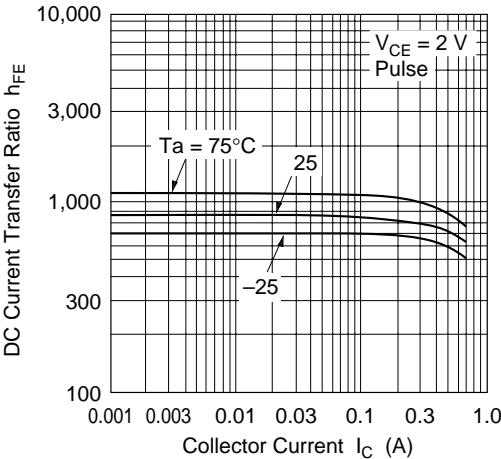
Typical Transfer Characteristics



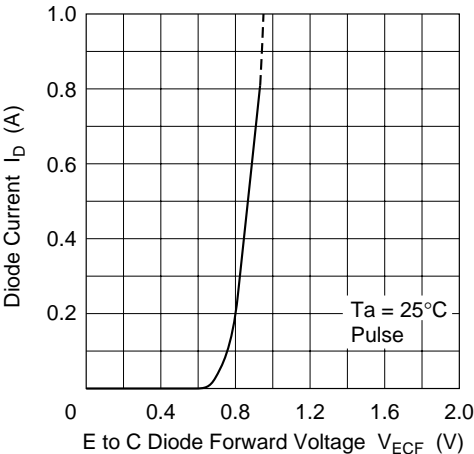
Saturation Voltage vs. Collector Current

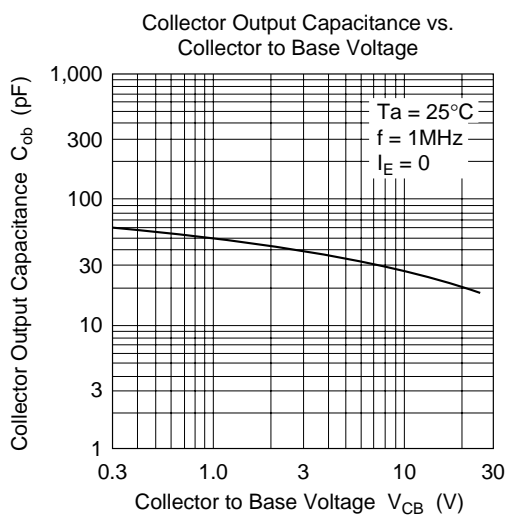


DC Current Transfer Ratio vs. Collector Current



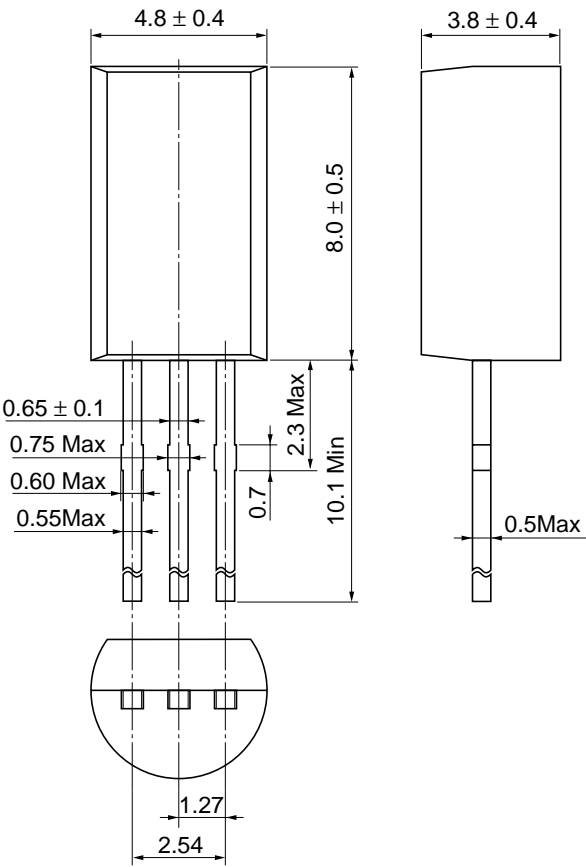
Typical Characteristics of Emitter to Collector Diode





Package Dimensions

As of January, 2001
Unit: mm



Hitachi Code	TO-92 Mod
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.35 g

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