
2SD655

Silicon NPN Epitaxial

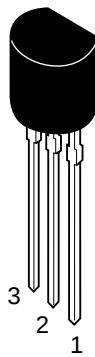
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Application

Low frequency power amplifier, Muting

Outline

TO-92 (1)



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

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	30	V
Collector to emitter voltage	V_{CEO}	15	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	0.7	A
Collector peak current	$i_{C(peak)}$	1.0	A
Collector power dissipation	P_C	500	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

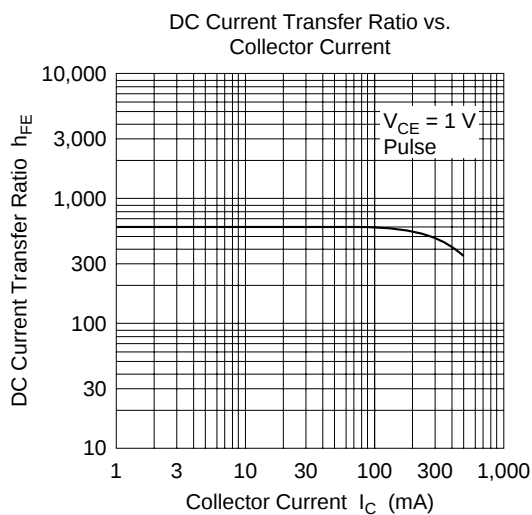
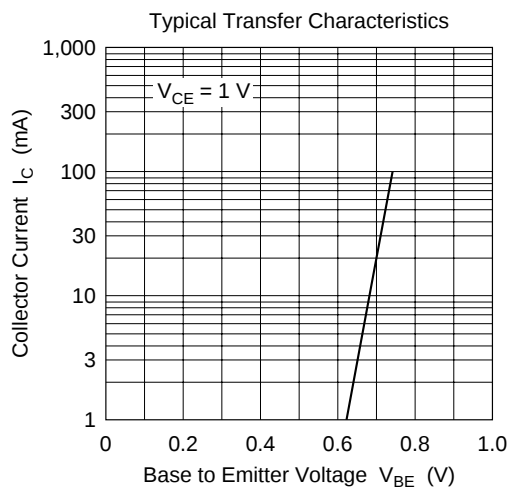
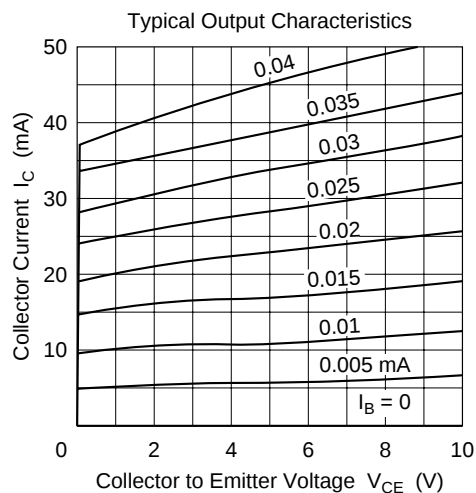
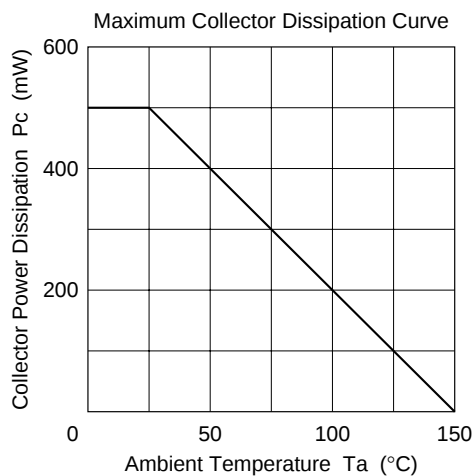
Electrical Characteristics (Ta = 25°C)

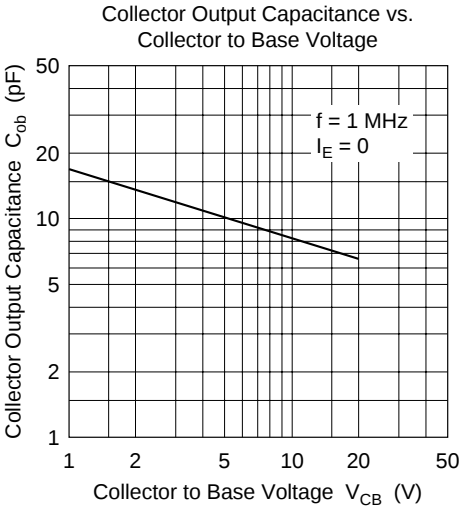
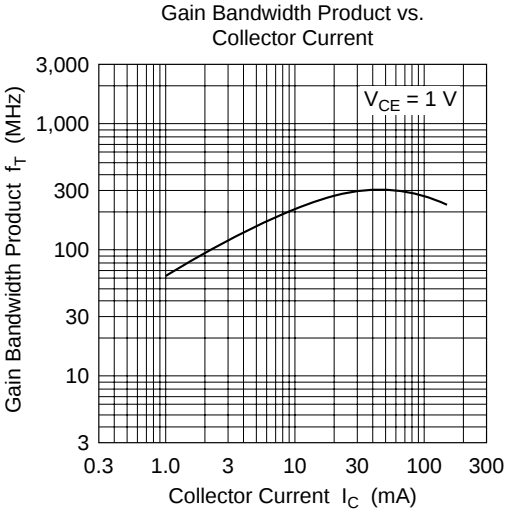
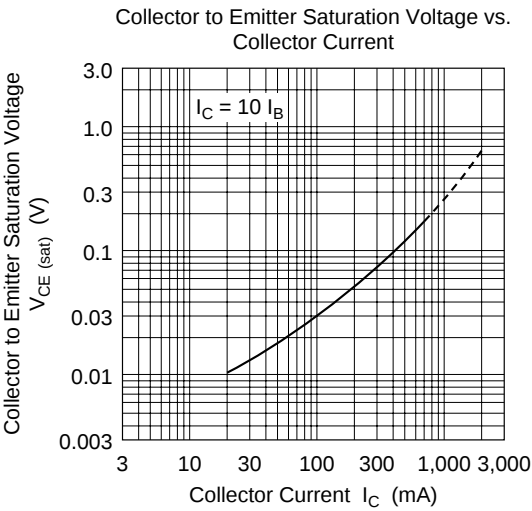
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	30	—	—	V	$I_C = 10\text{ }\mu\text{A}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	15	—	—	V	$I_C = 1\text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 10\text{ }\mu\text{A}$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	1.0	μA	$V_{CB} = 20\text{ V}$, $I_E = 0$
Base to emitter voltage	V_{BE}	—	—	1.0	V	$V_{CE} = 1\text{ V}$, $I_C = 150\text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	0.15	0.5	V	$I_C = 500\text{ mA}$, $I_B = 50\text{ mA}^{*2}$
DC current transfer ratio	h_{FE}^{*1}	250	—	1200		$V_{CE} = 1\text{ V}$, $I_C = 150\text{ mA}^{*2}$
Gain bandwidth product	f_T	—	250	—	MHz	$V_{CE} = 1\text{ V}$, $I_C = 150\text{ mA}$

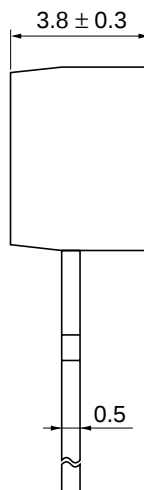
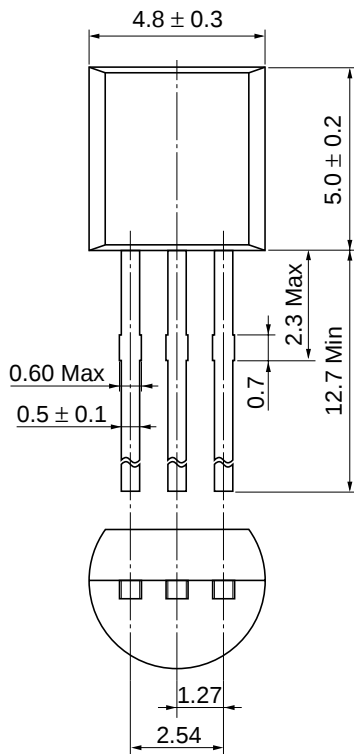
Notes: 1. The 2SD655 is grouped by h_{FE} as follows.

2. Pulse test

D	E	F
250 to 500	400 to 800	600 to 1200







Hitachi Code	TO-92 (1)
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.25 g

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