

2SC1162

Silicon NPN Epitaxial

HITACHI

Application

Low frequency power amplifier complementary pair with 2SA715

Outline

TO-126 MOD



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

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	35	V
Collector to emitter voltage	V_{CEO}	35	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	2.5	A
Collector peak current	$I_{C(peak)}$	3	A
Collector power dissipation	P_C	0.75	W
	P_C^{*1}	10	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

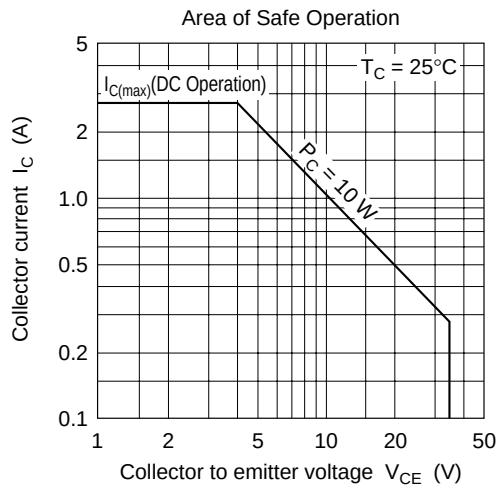
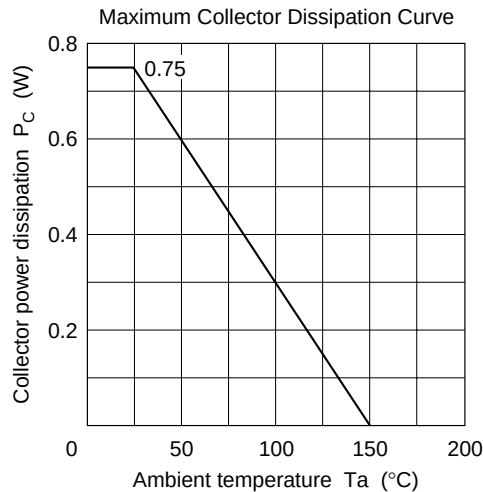
Note: 1. Value at $T_C = 25^\circ\text{C}$.

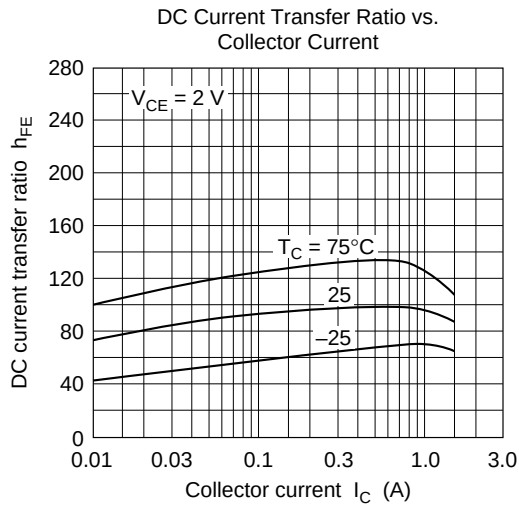
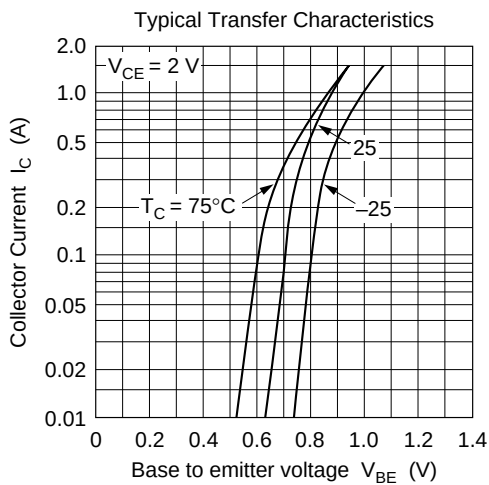
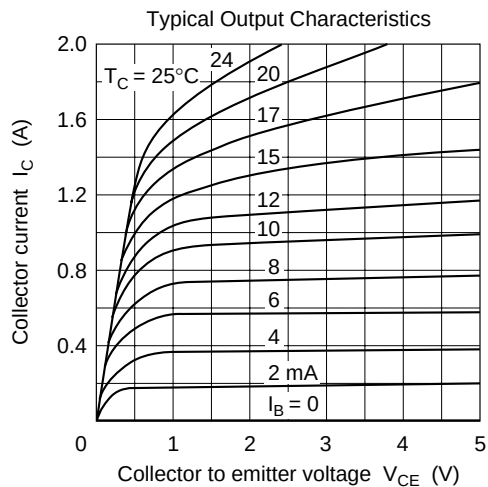
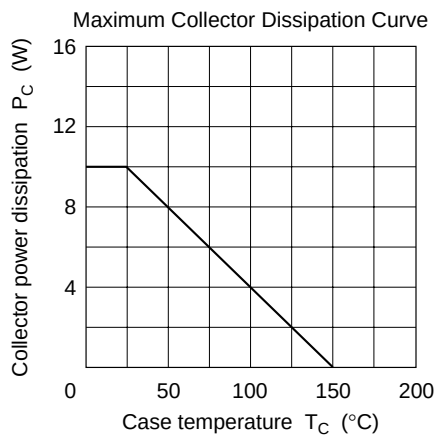
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	35	—	—	V	$I_C = 1\text{ mA}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	35	—	—	V	$I_C = 10\text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 1\text{ mA}$, $I_C = 0$
Collector cutoff current	I_{CBO}	—	—	20	μA	$V_{CB} = 35\text{ V}$, $I_E = 0$
DC current transfer ratio	h_{FE}^{*1}	60	—	320		$V_{CE} = 2\text{ V}$, $I_C = 0.5\text{ A}$
	h_{FE}	20	—	—		$V_{CE} = 2\text{ V}$, $I_C = 1.5\text{ A}$ (pulse test)
Base to emitter voltage	V_{BE}	—	0.93	1.5	V	$V_{CE} = 2\text{ V}$, $I_C = 1.5\text{ A}$ (pulse test)
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	0.5	1.0	V	$I_C = 2\text{ A}$, $I_B = 0.2\text{ A}$ (pulse test)
Gain bandwidth product	f_T	—	180	—	MHz	$V_{CE} = 2\text{ V}$, $I_C = 0.2\text{ A}$

Note: 1. The 2SC1162 is grouped by h_{FE} as follows.

B	C	D
60 to 120	100 to 200	160 to 320





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