
2SC5225

Silicon NPN Epitaxial Transistor

HITACHI

ADE-208-393
1st. Edition

Application

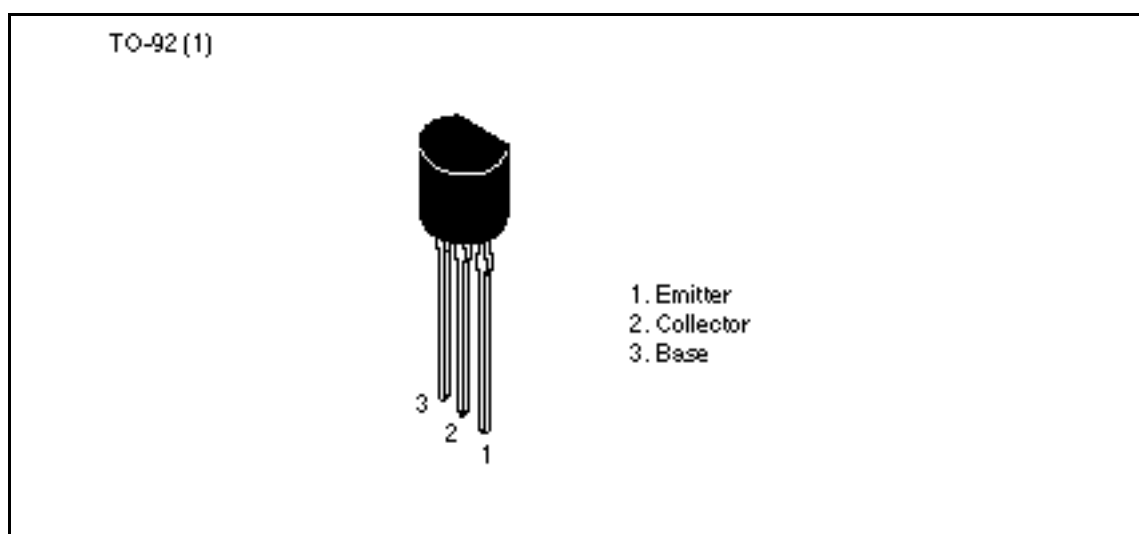
- Wide band video output amplifier for color CRT monitor.
- High frequency high voltage amplifier.
- High speed power switching.
- Complementary pair with 2SA1960.

Features

- High voltage large current operation.
 $V_{CE0} = 80 \text{ V}$, $I_C = 300 \text{ mA}$
- High f_T .
 $f_T = 1.4 \text{ GHz}$
- Small output capacitance.
 $C_{ob} = 3 \text{ pF}$

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Outline



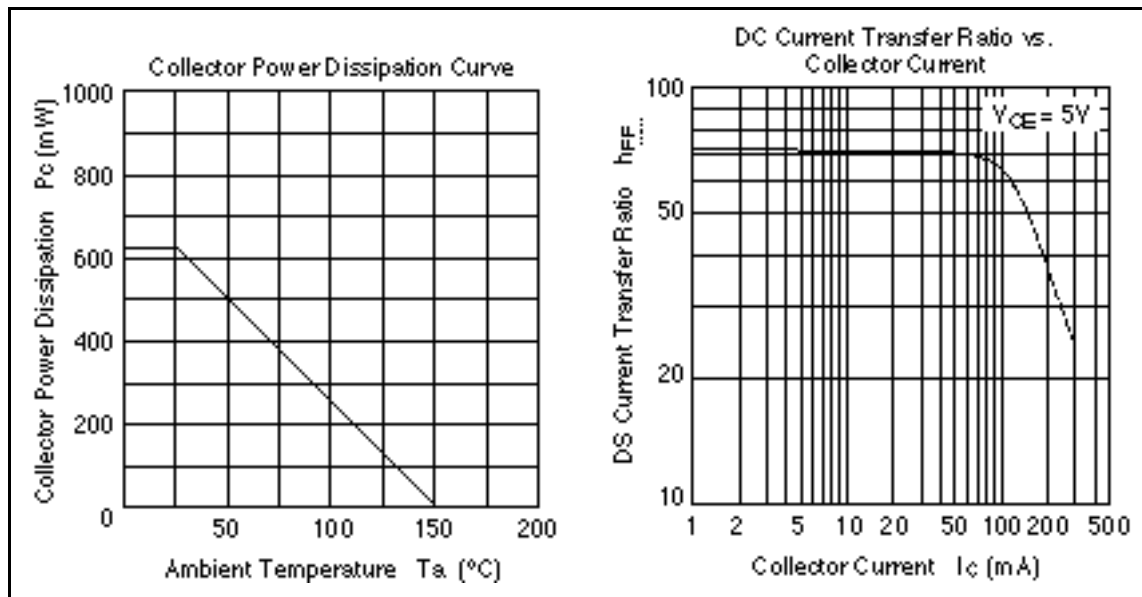
Absolute Maximum Ratings (Ta = 25°C)

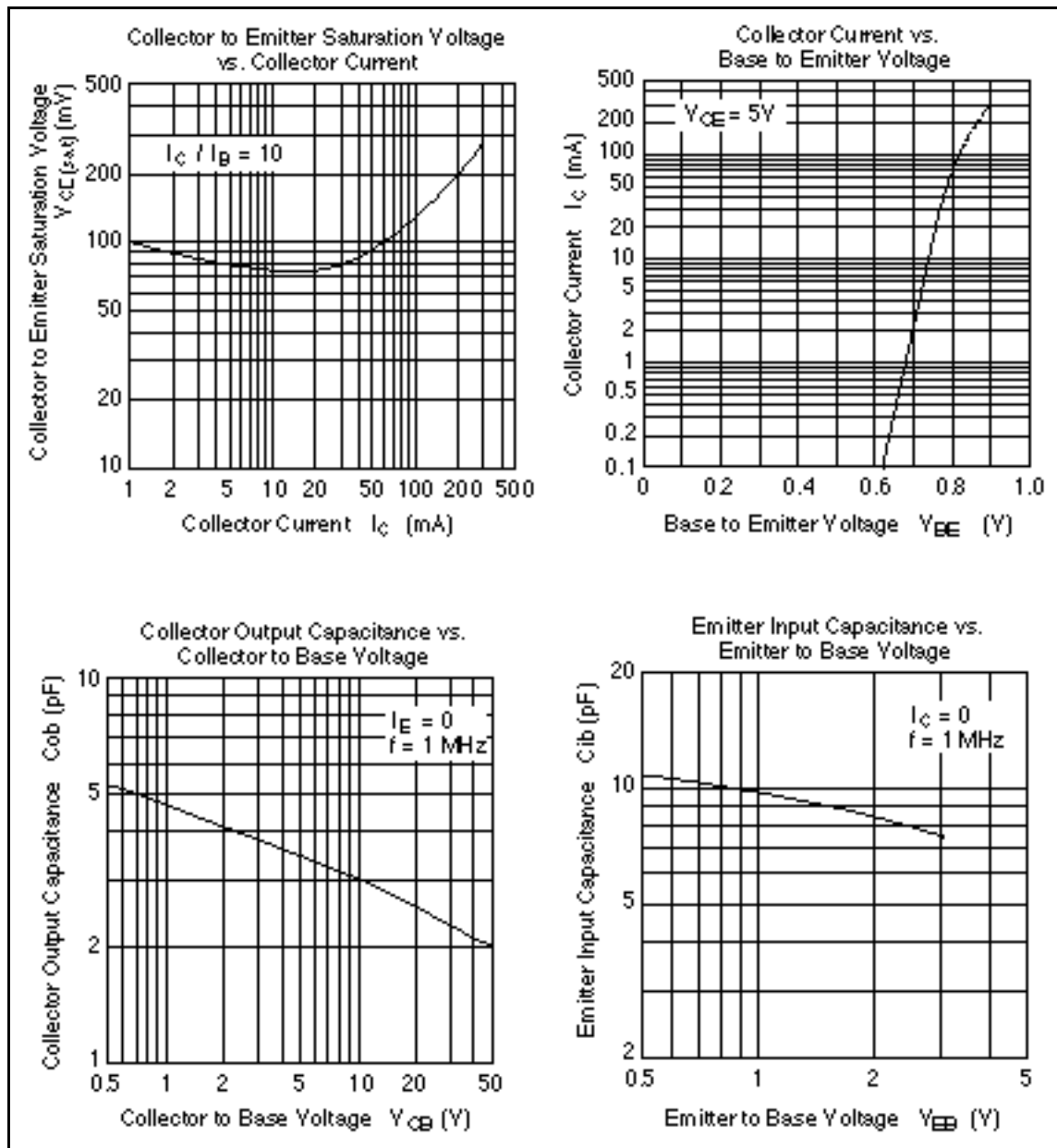
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	100	V
Collector to emitter voltage	V_{CEO}	80	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	I_C	300	mA
Collector power dissipation	P_C	625	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

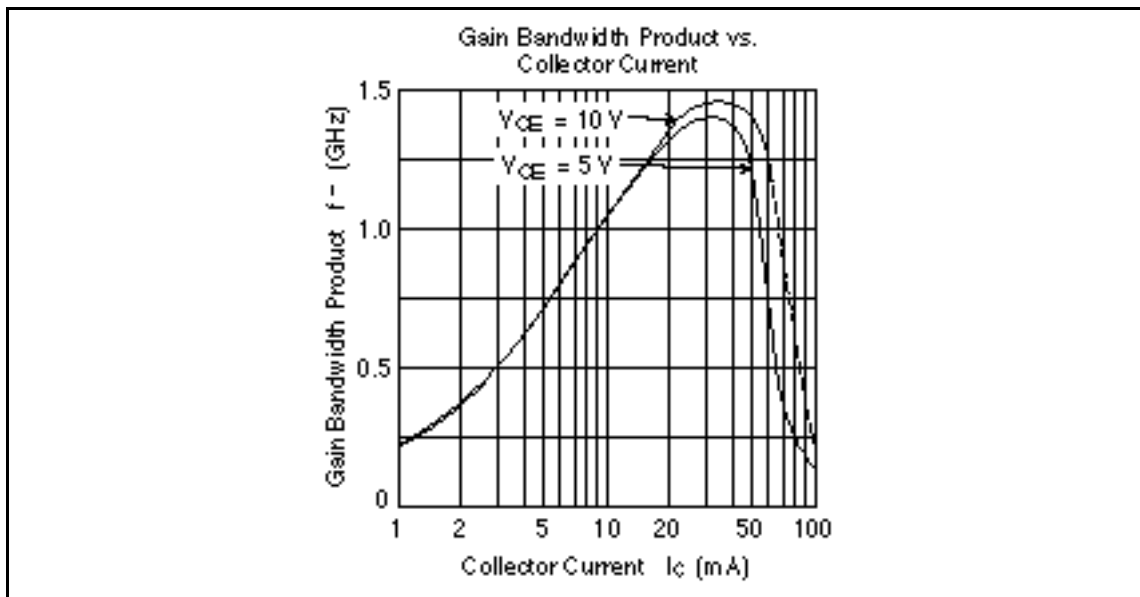
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	100	—	—	V	$I_C = 100 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	80	—	—	V	$I_C = 1 \text{ mA}, R_{BE} =$
Collector to base cutoff current	I_{CBO}	—	—	1	μA	$V_{CB} = 80 \text{ V}, I_E = 0$
Emitter to base cutoff current	I_{EBO}	—	—	10	μA	$V_{EB} = 3 \text{ V}, I_C = 0$
DC current transfer ratio	h_{FE}	20	70	—		$V_{CE} = 5 \text{ V}, I_C = 50 \text{ mA}$ Pulse test
Gain bandwidth product	f_T	1.2	1.4	—	GHz	$V_{CE} = 10 \text{ V}, I_C = 50 \text{ mA}$
Emitter input capacitance	C_{ib}	—	13	19	pF	$V_{EB} = 0, I_C = 0, f = 1 \text{ MHz}$
Collector output capacitance	C_{ob}	—	3	4	pF	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$

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