2SC2611

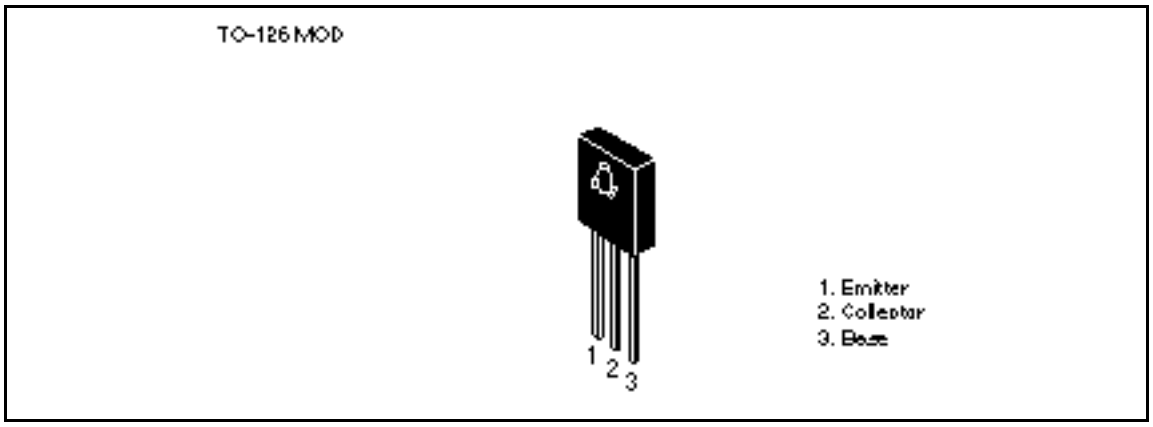
Silicon NPN Triple Diffused

HITACHI

Application

High voltage amplifier TV VIDEO output

Outline



Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	300	V
Collector to emitter voltage	V_{CEO}	300	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	100	mA
Collector power dissipation	P_C	1.25	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

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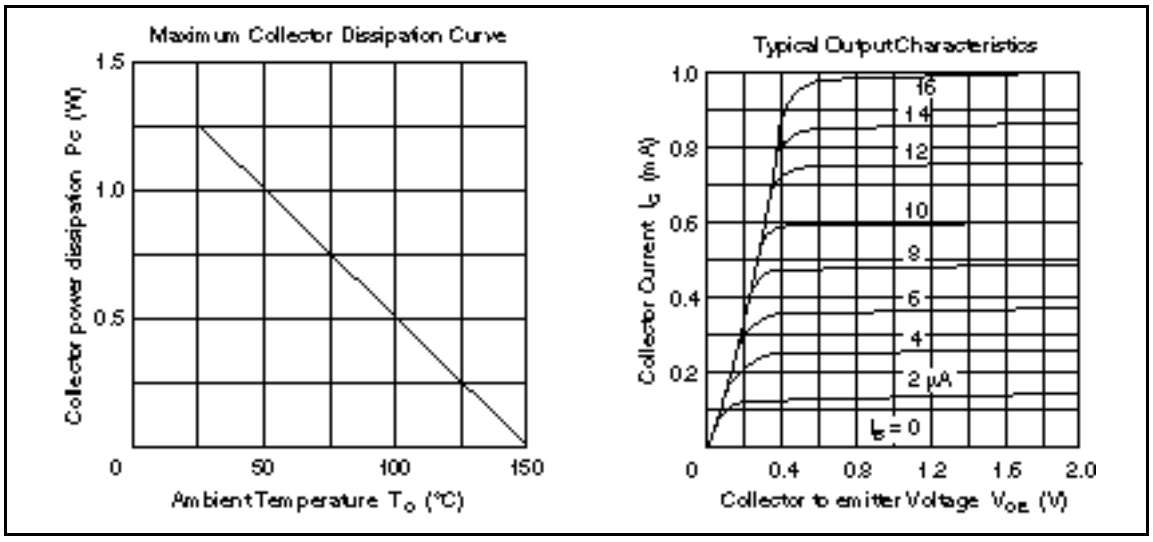
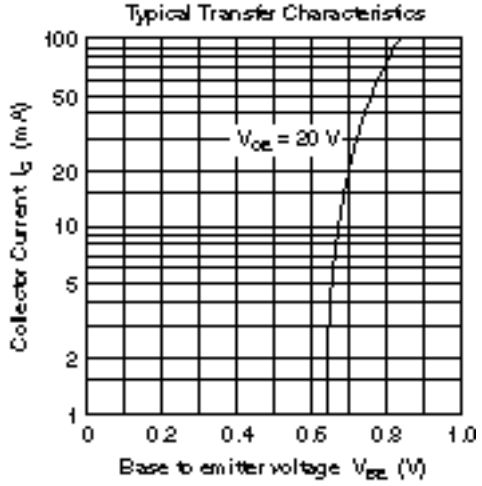
Electrical Characteristics (Ta = 25°C)

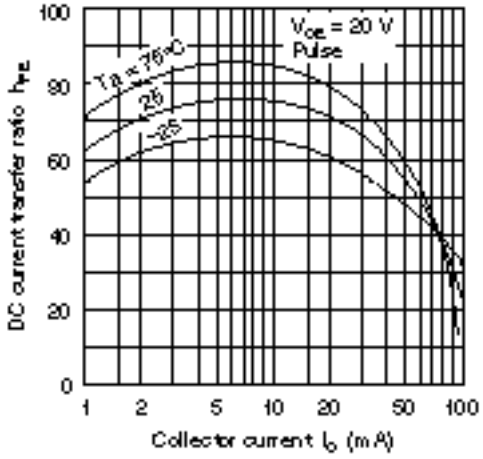
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	300	—	—	V	I_C = 10 µA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	300	—	—	V	I_C = 1 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	I_E = 10 µA, I_C = 0
Collector cutoff current	I_{CEO}	—	—	1.0	µA	V_{CE} = 250 V, R_{BE} = ∞
DC current transfer ratio	h_{FE}	30	—	200		V_{CE} = 20 V, I_C = 20 mA
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.5	V	I_C = 20 mA, I_B = 2 mA
Gain bandwidth product	f_T	50	80	—	MHz	V_{CE} = 20 V, I_C = 20 mA
Collector output capacitance	Cob	—	—	4.0	pF	V_{CB} = 20 V, I_E = 0, f = 1 MHz



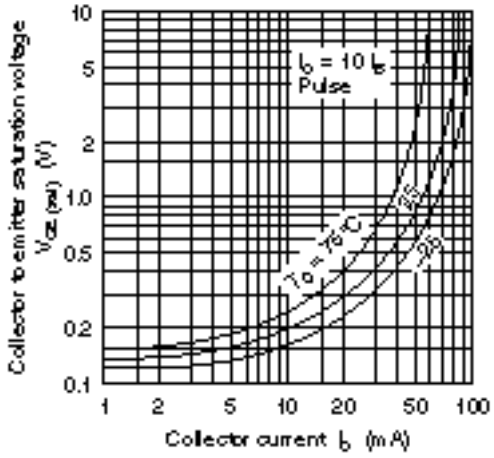
Typical Transfer Characteristics



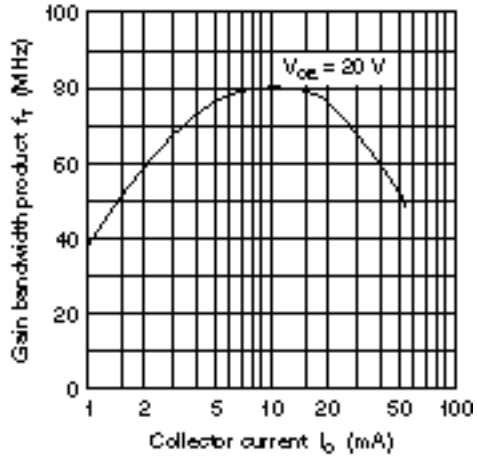
DC Current Transfer Ratio vs. Collector Current

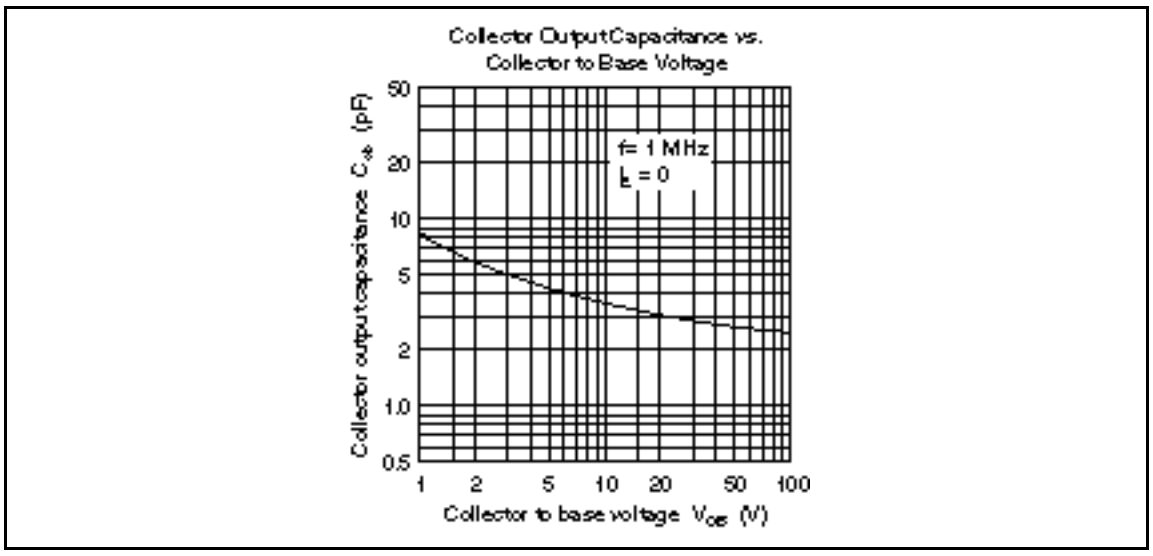


Collector to Emitter Saturation Voltage vs. Collector Current



Gain Bandwidth Product vs. Collector Current




Collector Output Capacitance vs.
Collector to Base Voltage
f = 1 MHz
I_E = 0
Collector output capacitance C_{ob} (pF)
50
20
10
5
2
1.0
0.5
1
2
5
10
20
50
100
Collector to base voltage V_{CB} (V)

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