
2SC2545, 2SC2546, 2SC2547

Silicon NPN Epitaxial

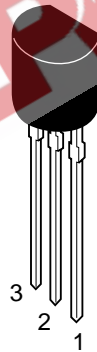
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Application

- Low frequency low noise amplifier
- Complementary pair with 2SA1083, 2SA1084 and 2SA1085

Outline

TO-92 (1)



1. Emitter
2. Collector
3. Base

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Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	2SC2545	2SC2546	2SC2547	Unit
Collector to base voltage	V_{CBO}	60	90	120	V
Collector to emitter voltage	V_{CEO}	60	90	120	V
Emitter to base voltage	V_{EBO}	5	5	5	V
Collector current	I_C	100	100	100	mA
Emitter current	I_E	-100	-100	-100	mA
Collector power dissipation	P_C	400	400	400	mW
Junction temperature	T_J	150	150	150	°C
Storage temperature	T_{stg}	-55 to +150	-55 to +150	-55 to +150	°C

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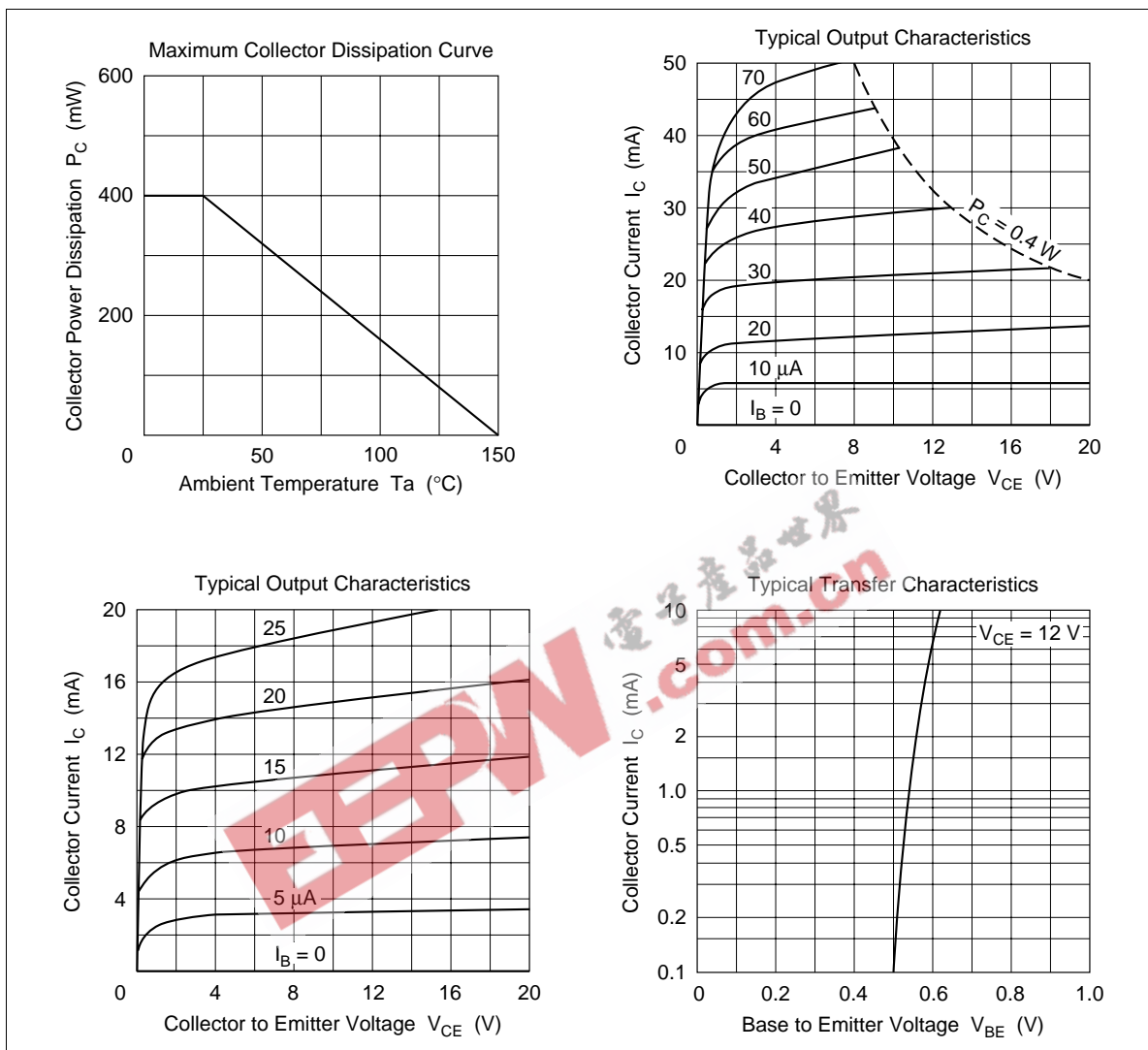
Electrical Characteristics (T_a = 25°C)

Item	Symbol	2SC2545			2SC2546			2SC2547			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max		
Collector to base breakdown voltage	V _{(BR)CBO}	60	—	—	90	—	—	120	—	—	V	I _C = 10 μA, I _E = 0
Collector to emitter breakdown voltage	V _{(BR)CEO}	60	—	—	90	—	—	120	—	—	V	I _C = 1 mA, R _{BE} = ∞
Emitter to base breakdown voltage	V _{(BR)EBO}	5	—	—	5	—	—	5	—	—	V	I _E = 10 μA, I _C = 0
Collector cutoff current	I _{CBO}	—	—	0.1	—	—	0.1	—	—	0.1	μA	V _{CB} = 50 V, I _E = 0
Emitter cutoff current	I _{EBO}	—	—	0.1	—	—	0.1	—	—	0.1	μA	V _{EB} = 2 V, I _C = 0
DC current transfer ratio	h _{FE} ^{*1}	250	—	1200	250	—	1200	250	—	800		V _{CE} = 12 V, I _C = 2 mA
Collector to emitter saturation voltage	V _{CE(sat)}	—	—	0.2	—	—	0.2	—	—	0.2	V	I _C = 10 mA, I _B = 1 mA
Base to emitter voltage	V _{BE}	—	0.6	—	—	0.6	—	—	0.6	—	V	V _{CE} = 12 V, I _C = 2 mA
Gain bandwidth product	f _T	—	90	—	—	90	—	—	90	—	MHz	V _{CE} = 12 V, I _C = 2 mA
Collector output capacitance	C _{ob}	—	3.0	—	—	3.0	—	—	3.0	—	pF	V _{CB} = 10 V, I _E = 0, f = 1 MHz
Noise voltage referred input	e _n	—	0.5	—	—	0.5	—	—	0.5	—	nV/ √Hz	V _{CE} = 6V, I _C = 10 mA, f = 1 kHz, R _g = 0, Δf = 1Hz

Note: 1. The 2SC2545, 2SC2546 and 2SC2547 are grouped by h_{FE} as follows.

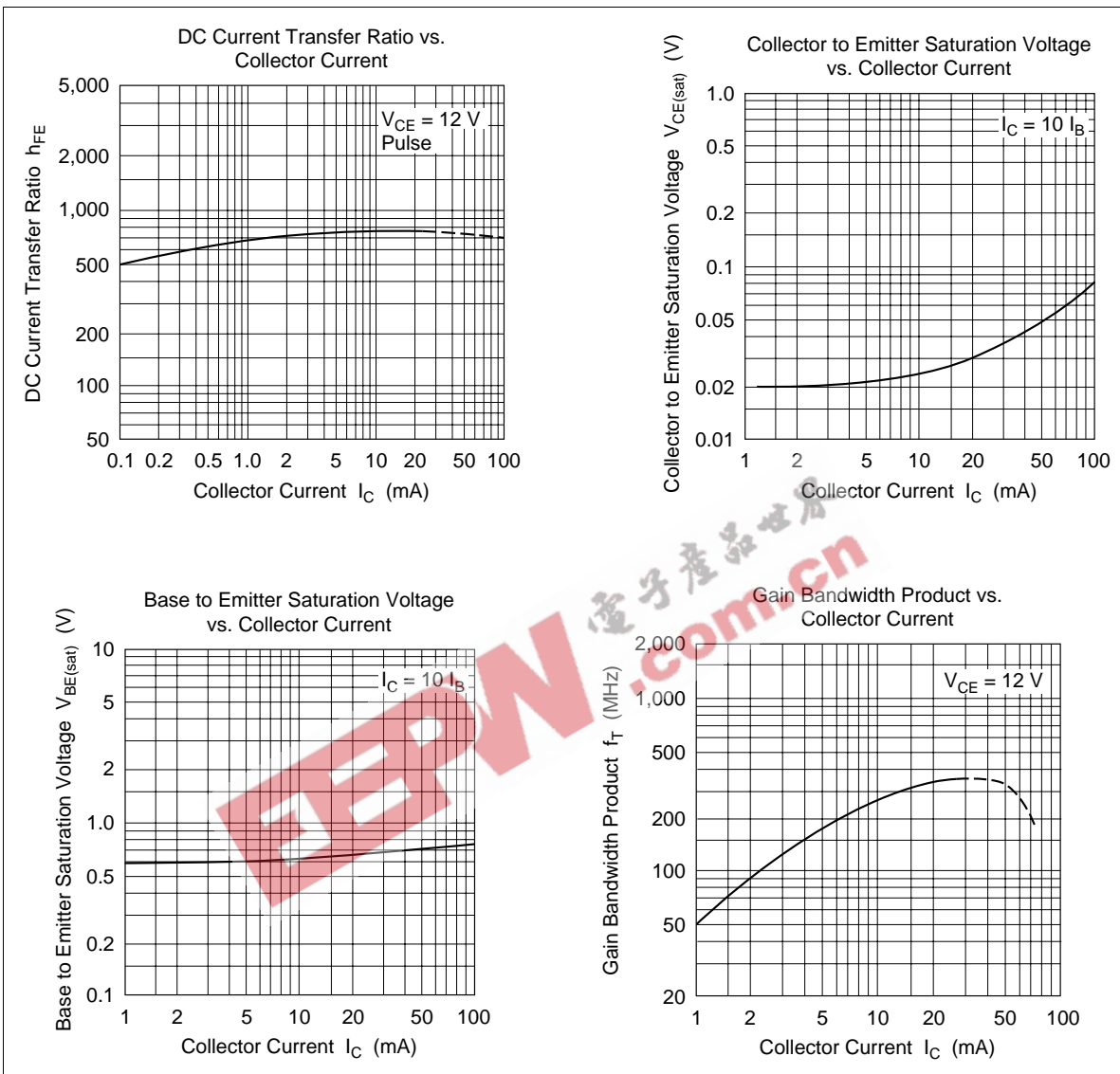
	D	E	F
2SC2545, 2SC2546	250 to 500	400 to 800	600 to 1200
2SC2547	250 to 500	400 to 800	—

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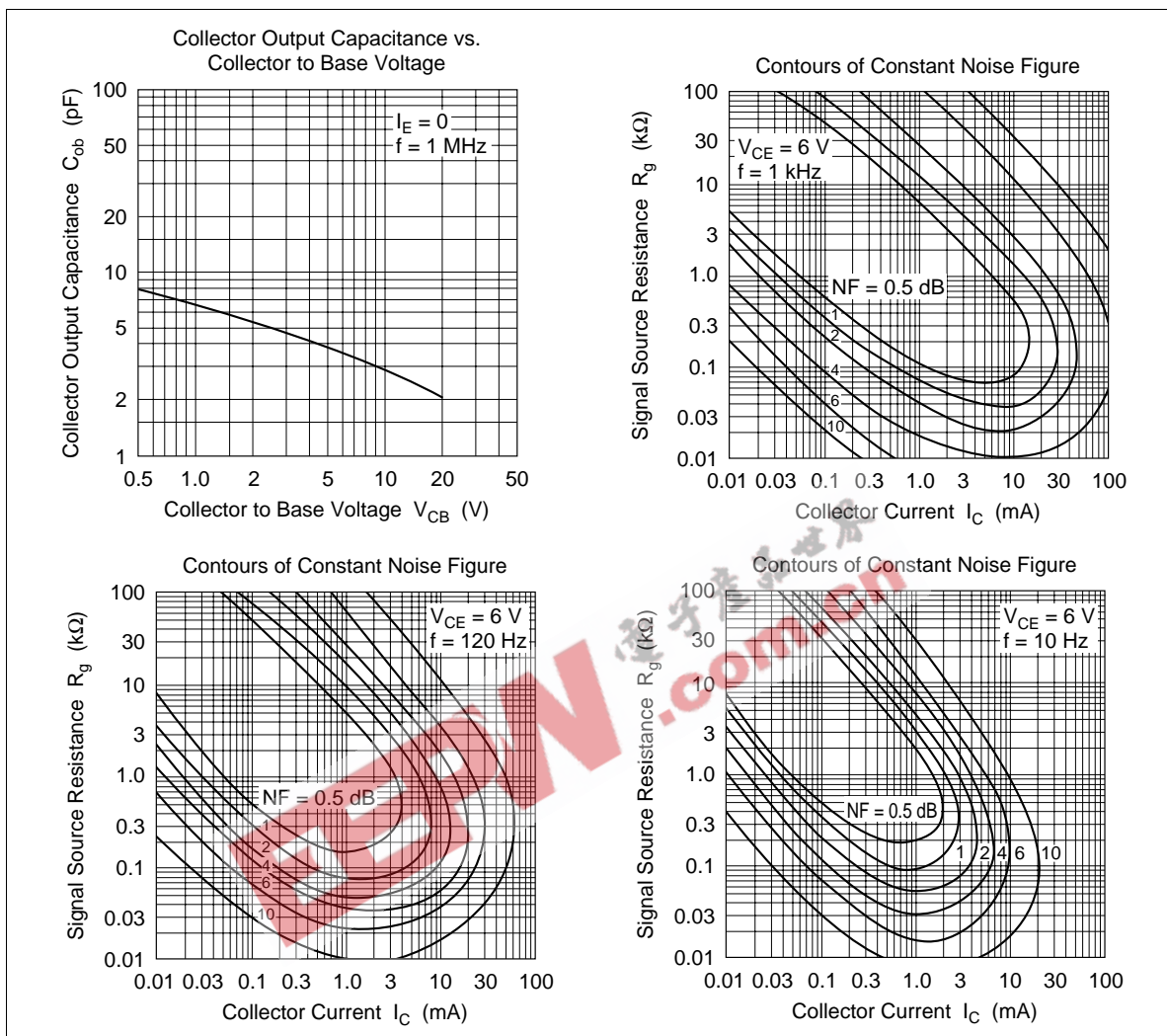


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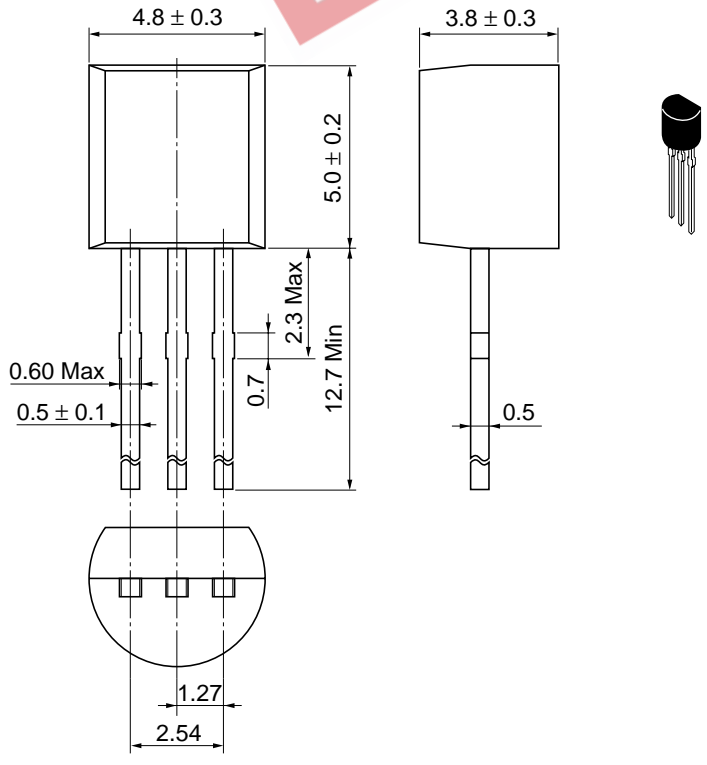


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Unit: mm



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

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