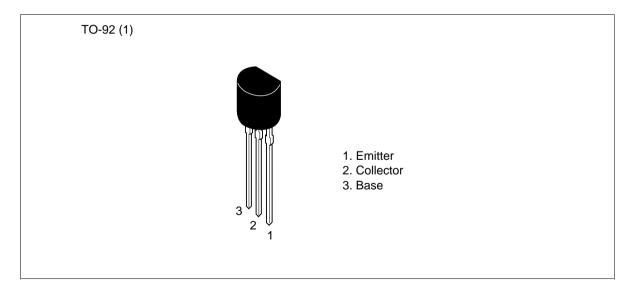
Silicon PNP Epitaxial

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Application

- Low frequency low noise amplifier
- Complementary pair with 2SC2545, 2SC2546 and 2SC2547

Outline





Absolute Maximum Ratings (Ta = 25° C)

Item	Symbol	2SA1083	2SA1084	2SA1085	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	Ι _Ε	100	100	100	mA
Collector power dissipation	Pc	400	400	400	mW
Junction temperature	Tj	150	150	150	°C
Storage temperature	Tstg	-55 to +150	–55 to +150	–55 to +150	°C

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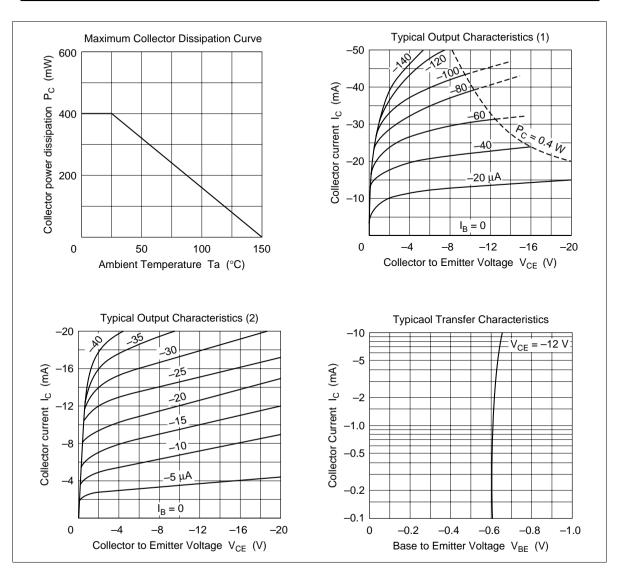
Electrical Characteristics (Ta = 25°C)

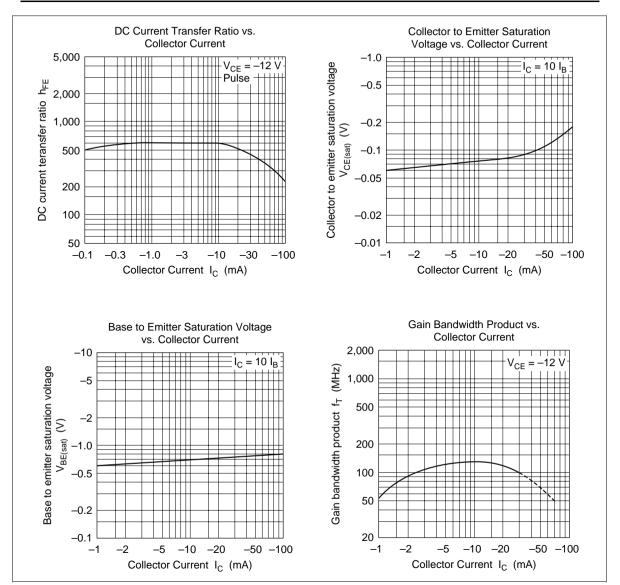
		2SA1	083		2SA1084		2SA1085					
Item	Symbol	Min	Тур	Max	Min	Тур	Max	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-60	_	-	-90	_	_	-120	_	-	V	$I_{c} = -10 \ \mu A, \ I_{E} = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-60	_	_	-90	_	_	-120	_	_	V	$I_{\rm C} = -1 \text{ mA},$ $R_{\rm BE} = \infty$
Emitter to base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	-5	_	_	-5	_	_	-5	_	_	V	$I_{\rm E} = -10 \ \mu A, \ I_{\rm C} = 0$
Collector cutoff current	I _{CBO}	_	_	-0.1	_	_	-0.1	_	_	-0.1	μΑ	$V_{CB} = -50 \text{ V}, \text{ I}_{E} = 0$
Emitter cutoff current	I_{EBO}	_	_	-0.1	_	_	-0.1	_	_	-0.1	μΑ	$V_{EB} = -2 V, I_{C} = 0$
DC current transfer ratio	h _{FE} *1	250	-	800	250	_	800	250	_	800		$V_{CE} = -12 \text{ V},$ $I_C = -2 \text{ mA}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	_	_	-0.2	_	_	-0.2	_	_	-0.2	V	$I_{\rm C} = -10 \text{ mA},$ $I_{\rm B} = -1 \text{ mA}$
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	Cob	_	3.5	_	_	3.5	_	_	3.5	_	pF	$V_{CB} = -10 \text{ V}, \text{ I}_{E} = 0,$ f = 1 MHz
Noise voltage reffered to input	e _n		0.5	_	_	0.5	_		0.5	_	nV/ √Hz	$V_{CE} = -6V,$ $I_{C} = -10 \text{ mA},$ f = 1 kHz, $R_{g} = 0, \Delta f = 1\text{ Hz}$

D

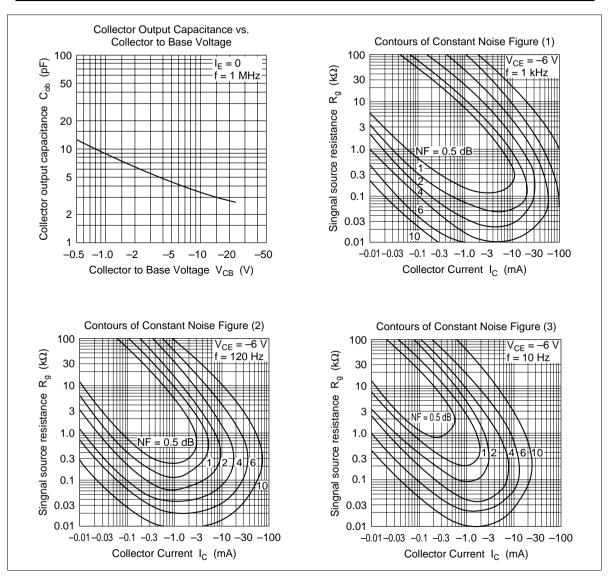
250 to 500 400 to 800

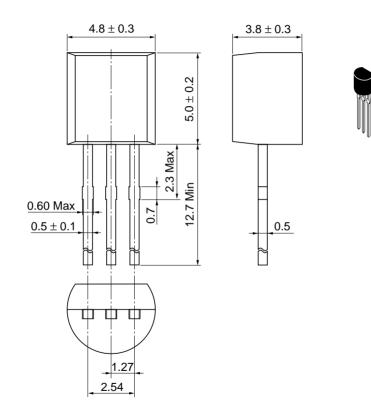
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Hitachi Code	TO-92 (1)
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.25 g

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