TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

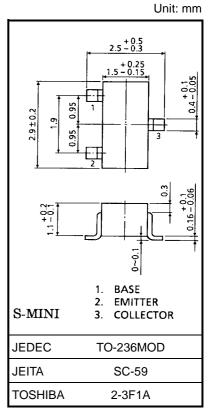
2SC3295

Audio Frequency Amplifier Applications Switching Applications

- High hFE: hFE = 600~3600
- High voltage: V_{CEO} = 50 V
- High collector current: IC = 150 mA (max)
- Small package

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	50	V
Collector-emitter voltage	V _{CEO}	50	V
Emitter-base voltage	V _{EBO}	5	V
Collector current	Ι _C	150	mA
Base current	Ι _Β	30	mA
Collector power dissipation	P _C	150	mW
Junction temperature	Tj	125	°C
Storage temperature range	T _{stg}	-55~125	°C



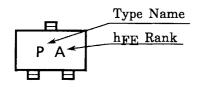
Weight: 0.012 g (typ.)

Electrical Characteristics (Ta = 25°C)

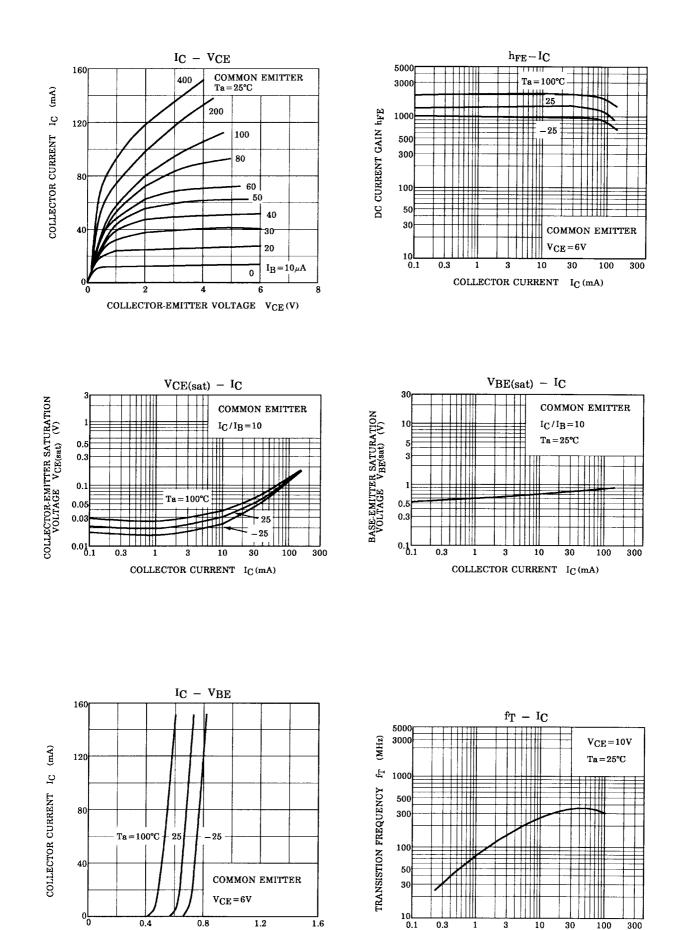
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	$V_{CB} = 50 \text{ V}, \text{ I}_{E} = 0$			0.1	μA
Emitter cut-off current	I _{EBO}	$V_{EB} = 5 \text{ V}, \text{ I}_{C} = 0$	_	—	0.1	μA
DC current gain	h _{FE} (Note)	$V_{CE} = 6 \text{ V}, \text{ I}_{C} = 2 \text{ mA}$	600	_	3600	
Collector-emitter saturation voltage	V _{CE (sat)}	$I_{C} = 100 \text{ mA}, I_{B} = 10 \text{ mA}$		0.12	0.25	V
Transition frequency	f _T	$V_{CE} = 10 \text{ V}, I_{C} = 10 \text{ mA}$	100	250	_	MHz
Collector output capacitance	C _{ob}	$V_{CB} = 10 \text{ V}, \text{ I}_{E} = 0, \text{ f} = 1 \text{ MHz}$		3.5		pF
Noise figure	NF (1)	V_{CE} = 6 V, I _C = 0.1 mA, f = 100 Hz, R_g = 10 k Ω	_	0.5	_	dB
	NF (2)	$\label{eq:Vce} \begin{array}{l} V_{CE}=6 \ V, \ I_C=0.1 \ mA, \ f=1 \ kHz, \\ R_g=10 \ k\Omega \end{array}$	_	0.3	—	

Note: hFE classification A: 600~1800, B: 1200~3600

Marking



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100

300

30

10

COLLECTOR CURRENT I_{C} (mA)

0.3

3

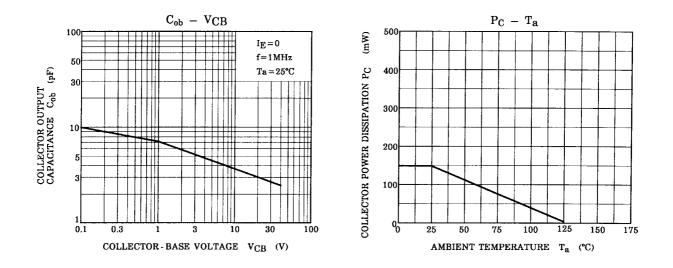
1.6

0.8

BASE-EMITTER VOLTAGE VBE (V)

0.4

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Handbook" etc.,

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