TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC2884

Audio Frequency Amplifier Applications

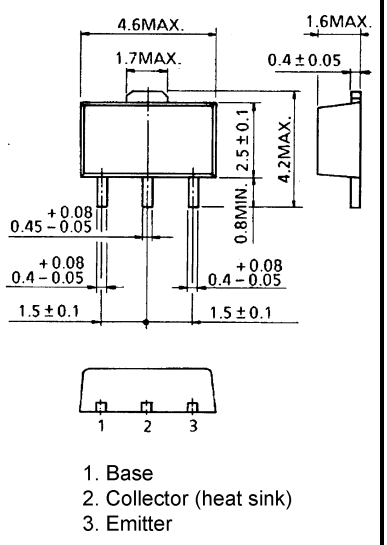
- High DC current gain: h_{FE} = 100 to 320
- Suitable for output stage of 1 watts amplifier
- Small flat package
- P_C = 1.0 to 2.0 W (mounted on ceramic substrate)
- Complementary to 2SA1204

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	35	V
Collector-emitter voltage	V_{CEO}	30	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	800	mA
Base current	I_B	160	mA
Collector power dissipation	P_C	500	mW
	P_C (Note 1)	1000	
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	−55 to 150	°C

Note 1: Mounted on ceramic substrate (250 mm^2 × 0.8 t)

Unit: mm



1. Base
2. Collector (heat sink)
3. Emitter

PW-MINI	
JEDEC	—
JEITA	SC-62
TOSHIBA	2-5K1A

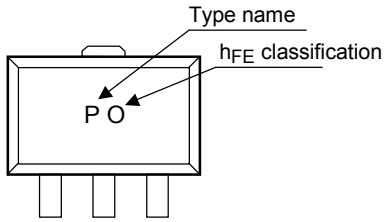
Weight: 0.05 g (typ.)

Electrical Characteristics (Ta = 25°C)

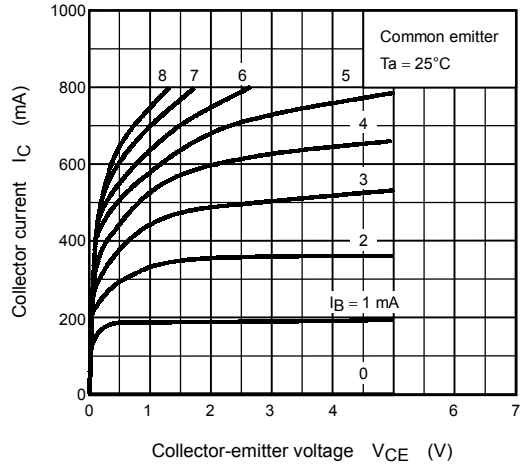
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB} = 35 V, I_E = 0	—	—	0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB} = 5 V, I_C = 0	—	—	0.1	μA
Collector-emitter breakdown voltage	$V_{(BR)\ CEO}$	I_C = 10 mA, I_B = 0	30	—	—	V
DC current gain	$h_{FE\ (1)}$ (Note 2)	I_E = 1 V, I_C = 100 mA	100	—	320	—
	$h_{FE\ (2)}$	V_{CE} = 1 V, I_C = 700 mA	35	—	—	
Collector-emitter saturation voltage	$V_{CE\ (sat)}$	I_C = 500 mA, I_B = 20 mA	—	—	0.5	V
Base-emitter voltage	V_{BE}	V_{CE} = 1 V, I_C = 10 mA	0.5	—	0.8	V
Transition frequency	f_T	V_{CE} = 5 V, I_C = 10 mA	—	120	—	MHz
Collector output capacitance	C_{ob}	V_{CB} = 10 V, I_E = 0, f = 1 MHz	—	13	—	pF

Note 2: $h_{FE\ (1)}$ classification O: 100 to 200, Y: 160 to 320

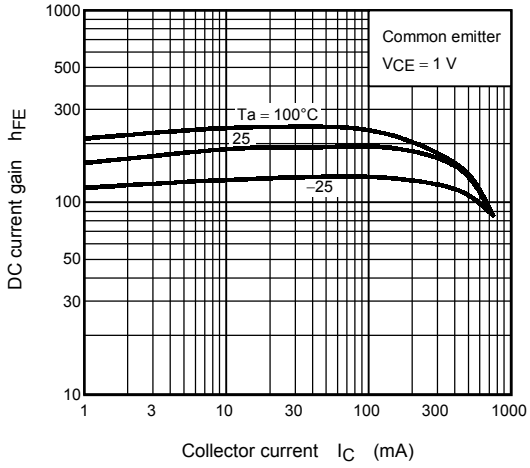
Marking



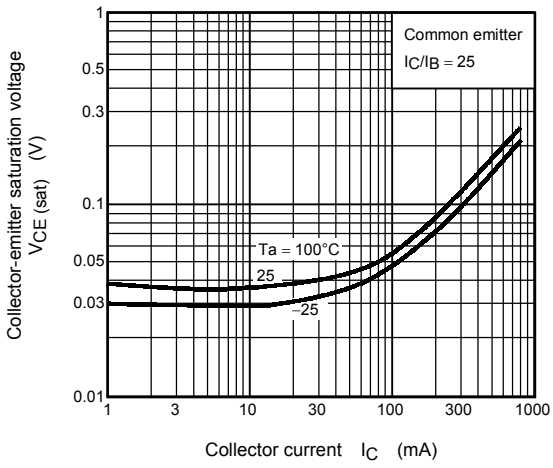
$I_C - V_{CE}$



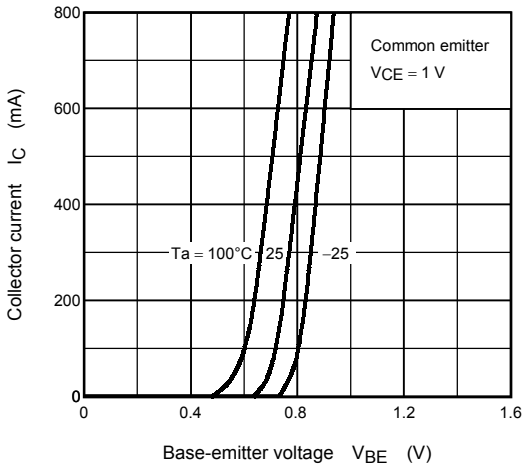
$h_{FE} - I_C$



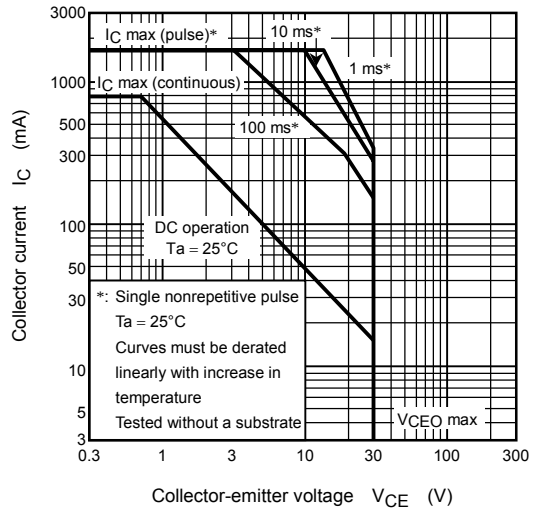
$V_{CE\ (sat)} - I_C$



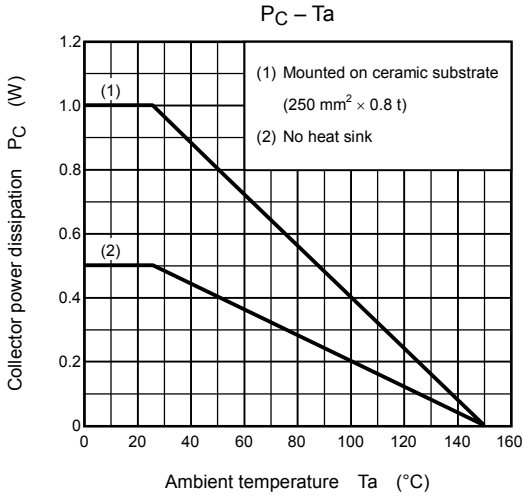
$I_C - V_{BE}$



Safe Operating Area



$P_C - Ta$



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