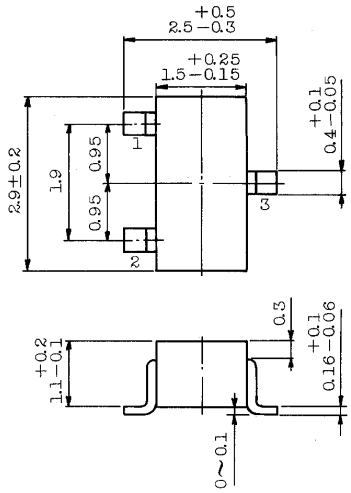
TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC3324

AUDIO FREQUENCY LOW NOISE AMPLIFIER APPLICATIONS.

- High Voltage : V_{CEO} = 120V
- Excellent h_{FE} Linearity
  : h_{FE} (I_C = 0.1mA) / h_{FE} (I_C = 2mA) = 0.95 (Typ.)
- High h_{FE} : h_{FE} = 200~700
- Low Noise : NF (2) = 0.2dB (Typ.), 3dB (Max.)
- Complementary to 2SA1312
- Small Package

Unit in mm



JEDEC	TO-236MOD
EIAJ	SC-59
TOSHIBA	2-3F1A

Weight : 0.012g

MAXIMUM RATINGS (Ta = 25°C)

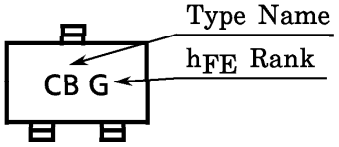
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	100	mA
Base Current	I_B	20	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	−55~125	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

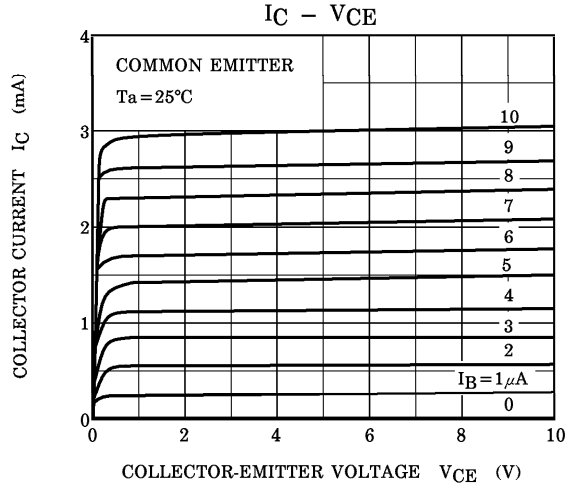
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = 120V, I_E = 0	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5V, I_C = 0	—	—	0.1	μA
DC Current Gain	h_{FE} (Note)	V_{CE} = 6V, I_C = 2mA	200	—	700	
Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C = 10mA, I_B = 1mA	—	—	0.3	V
Transition Frequency	f_T	V_{CE} = 6V, I_C = 1mA	—	100	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz	—	4	—	pF
Noise Figure	NF (1)	V_{CE} = 6V, I_C = 0.1mA, f = 100Hz, Rg = 10kΩ	—	0.5	6	dB
	NF (2)	V_{CB} = 6V, I_C = 0.1mA, f = 1kHz, Rg = 10kΩ	—	0.2	3	dB

Note: h_{FE} Classification GR (G): 200~400, BL (L): 350~700
( ) Marking Symbol

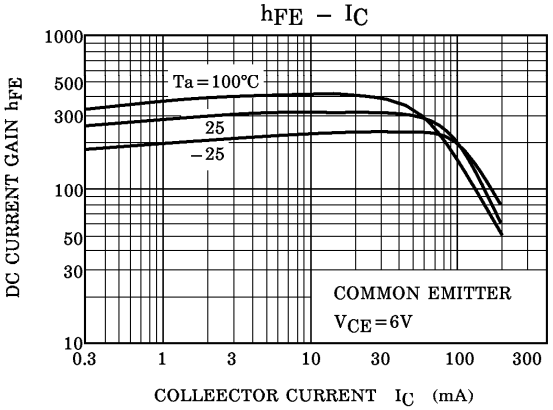
MARKING



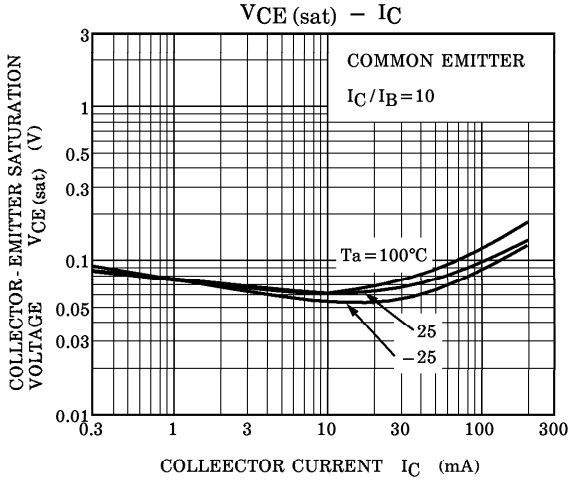
I_C – V_{CE}



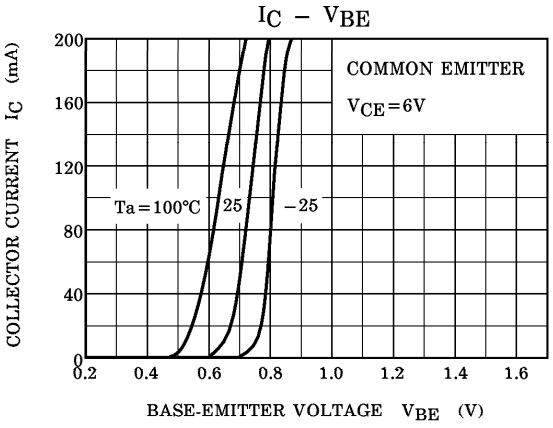
h_{FE} – I_C



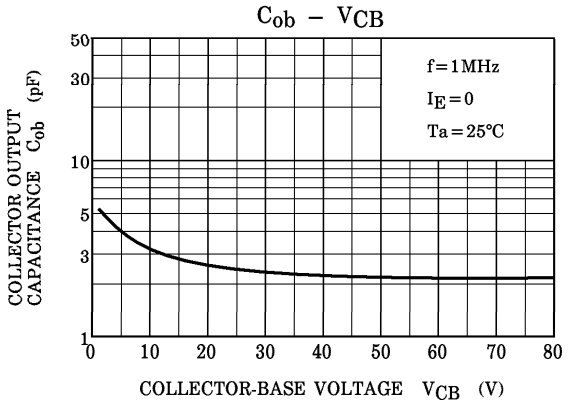
$V_{CE\,(sat)}$ – I_C



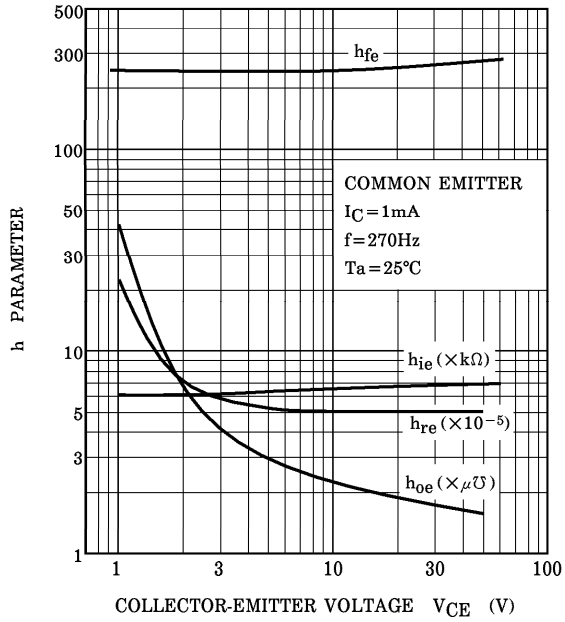
I_C – V_{BE}



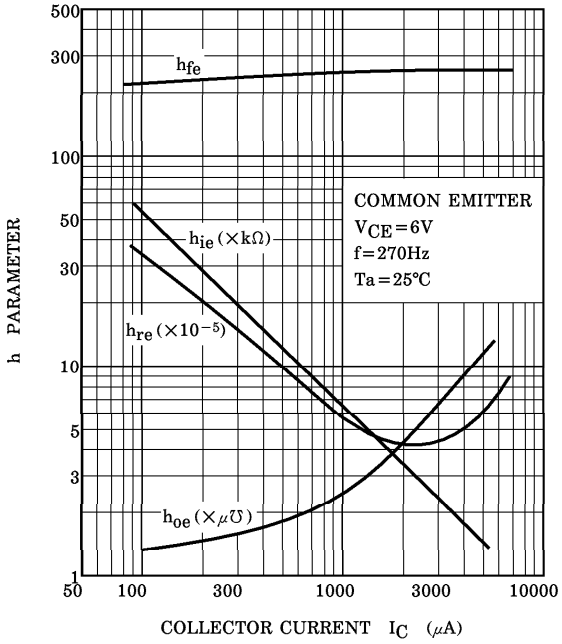
C_{ob} – V_{CB}



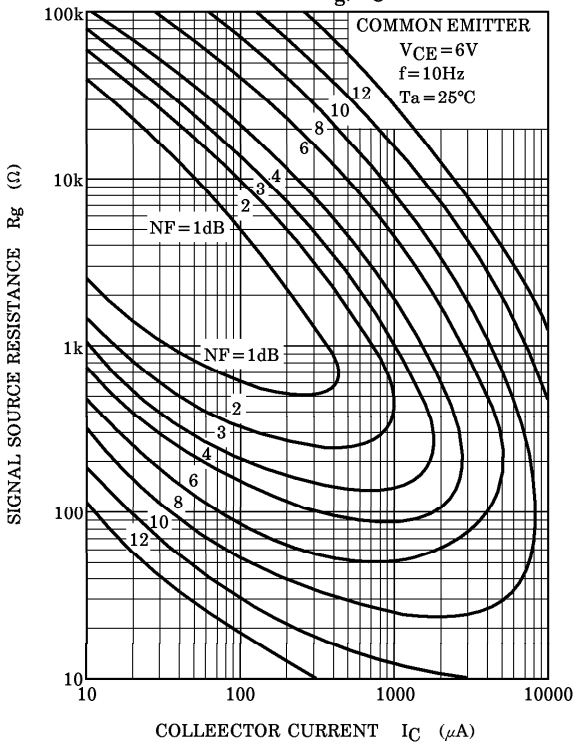
h PARAMETER – V_{CE}



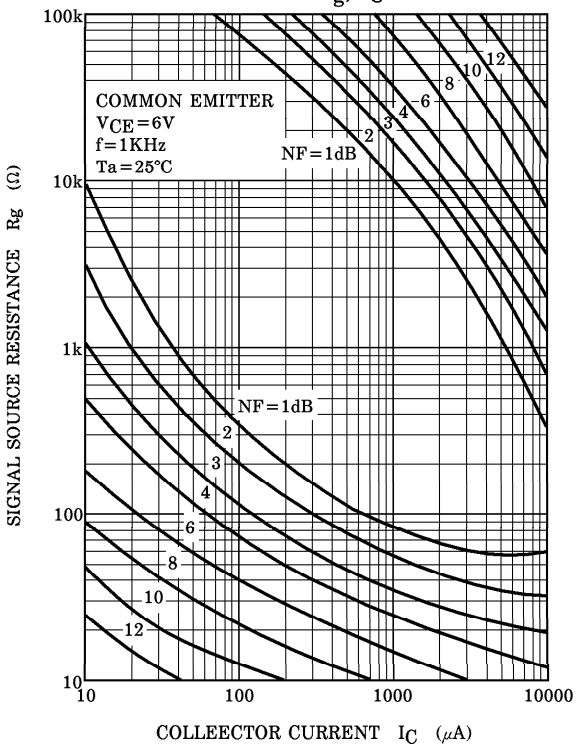
h PARAMETER – I_C



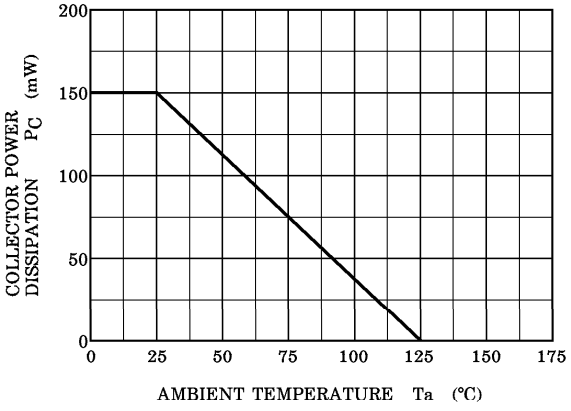
NF – R_g, I_C



NF – R_g, I_C



P_C – Ta



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