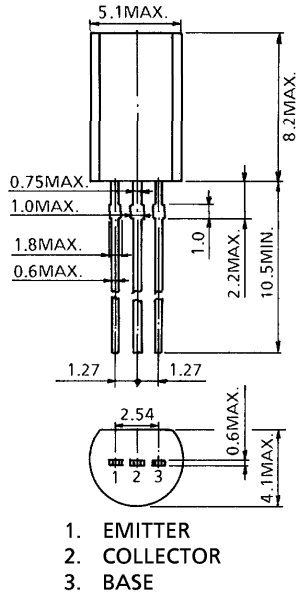
TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC2703

AUDIO POWER AMPLIFIER APPLICATIONS.

Unit in mm

- High DC Current Gain : h_{FE} = 100~320



JEDEC	TO-92MOD
EIAJ	—
TOSHIBA	2-5J1A

Weight : 0.36g

MAXIMUM RATINGS (Ta = 25°C)

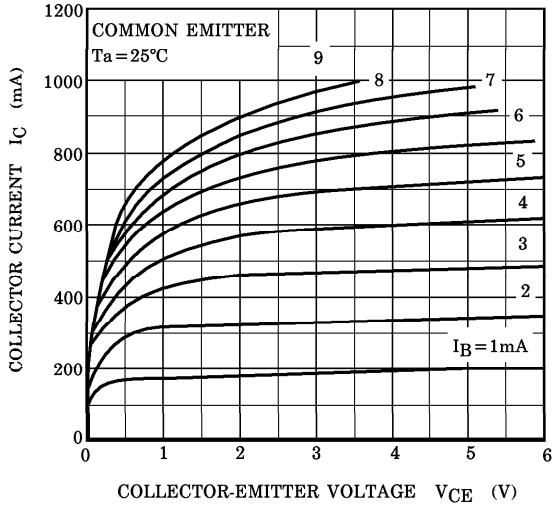
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1	A
Base Current	I_B	0.1	A
Collector Power Dissipation	P_C	900	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

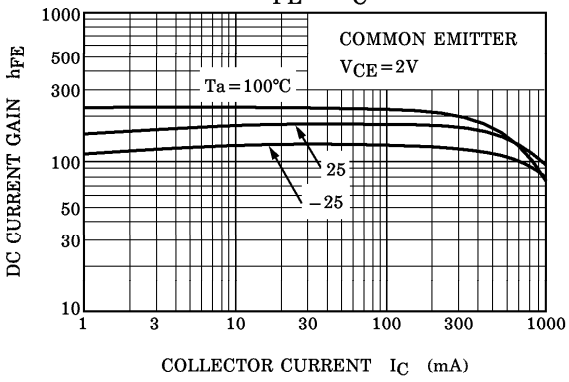
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = 30V, I_E = 0	—	—	100	nA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5V, I_C = 0	—	—	100	nA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 10mA, I_B = 0	30	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	V_{CE} = 2V, I_C = 100mA	100	—	320	
	$h_{FE(2)}$	V_{CE} = 2V, I_C = 800mA	40	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 800mA, I_B = 80mA	—	—	0.5	V
Base-Emitter Voltage	V_{BE}	V_{CE} = 2V, I_C = 800mA	—	0.9	1.5	V
Transition Frequency	f_T	V_{CE} = 2V, I_C = 100mA	—	150	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz	—	13	—	pF

Note : $h_{FE(1)}$ Classification O : 100~200, Y : 160~320

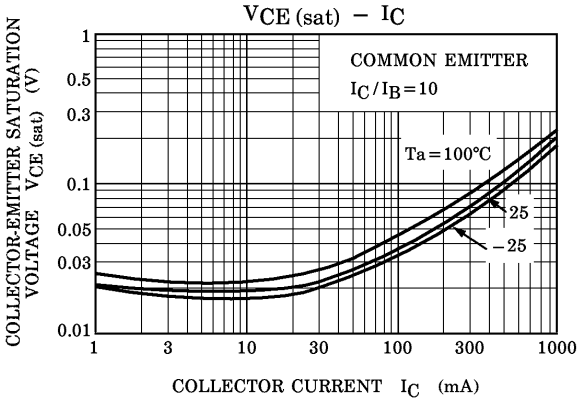
I_C – V_{CE}



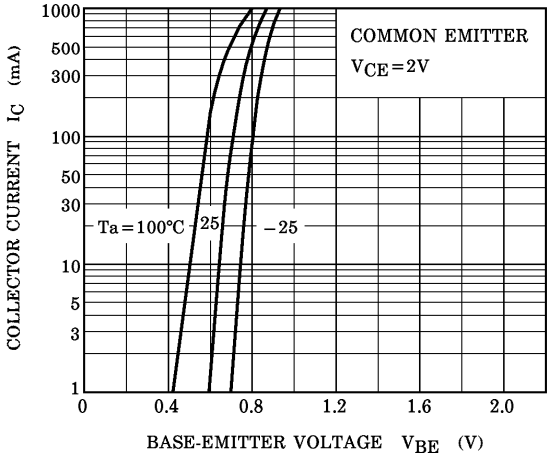
h_{FE} – I_C



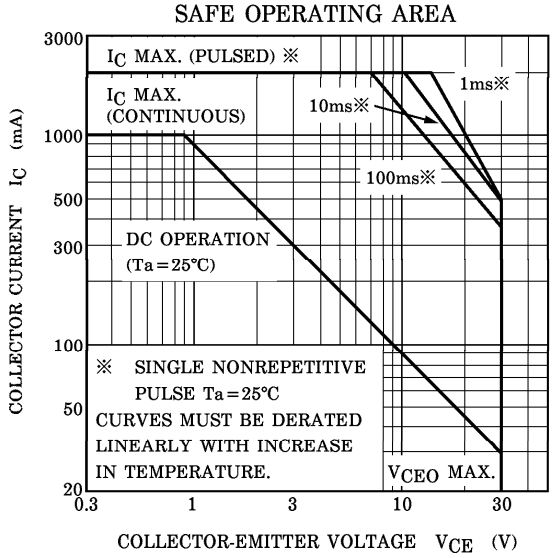
$V_{CE(sat)}$ – I_C



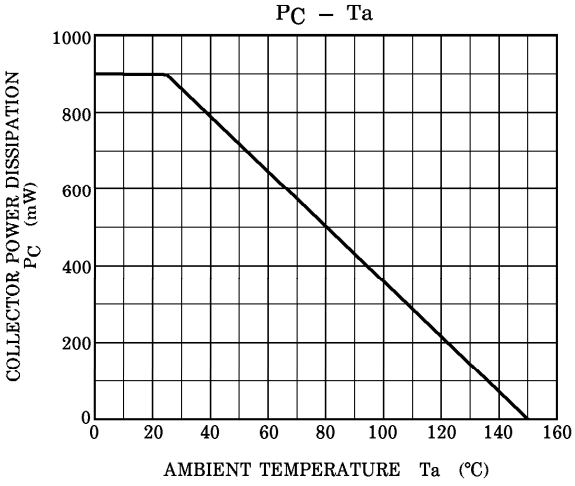
I_C – V_{BE}



SAFE OPERATING AREA



P_C – Ta



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