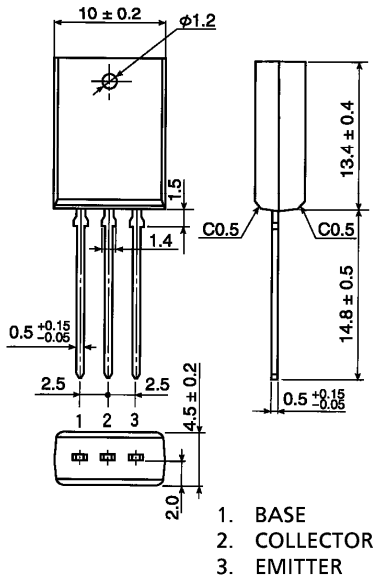
TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SD2525

AUDIO FREQUENCY POWER AMPLIFIER APPLICATIONS

Unit in mm

- High DC Current Gain : 100 (Min.)
- Low Saturation Voltage
  : $V_{CE\ (sat)}$ = 1.0V (Max.) (I_C = 2A, I_B = 0.2A)



JEDEC	—
JEITA	—
TOSHIBA	2-10T1A

Weight : 1.5g (Typ.)

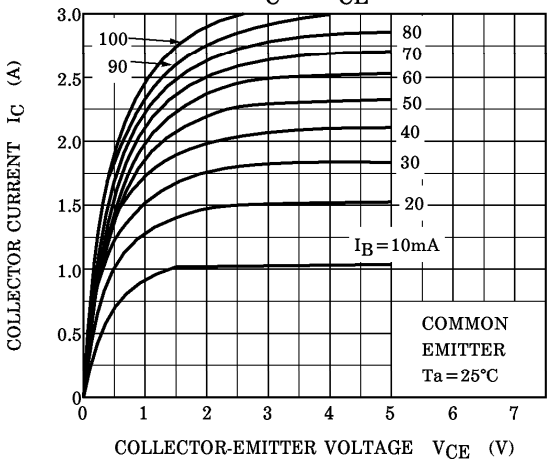
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	3	A
Base Current	I_B	0.5	A
Collector Power Dissipation	P_C	1.8	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

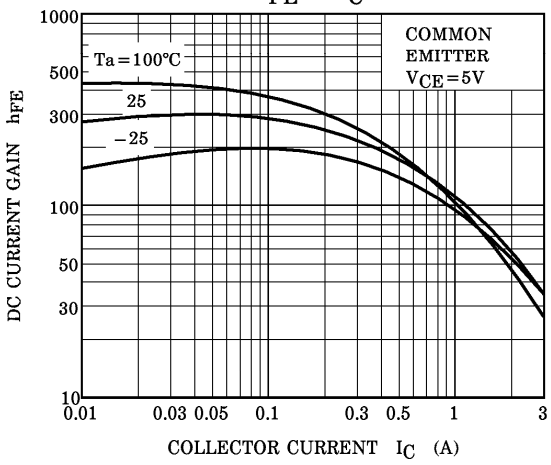
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = 60V, I_E = 0	—	—	100	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 7V, I_C = 0	—	—	100	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)\ CEO}$	I_C = 50mA, I_B = 0	60	—	—	V
DC Current Gain	h_{FE} (Note)	V_{CE} = 5V, I_C = 0.5A	100	—	320	
Collector-Emitter Saturation Voltage	$V_{CE\ (sat)}$	I_C = 2A, I_B = 0.2A	—	0.4	1.0	V
Base-Emitter Voltage	V_{BE}	V_{CE} = 5V, I_C = 0.5A	—	0.75	1.0	V
Transition Frequency	f_T	V_{CE} = 5V, I_C = 0.5A	—	3.0	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz	—	35	—	pF

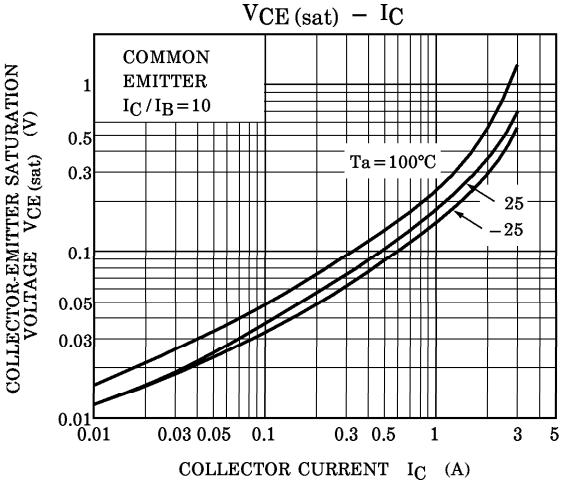
$I_C - V_{CE}$



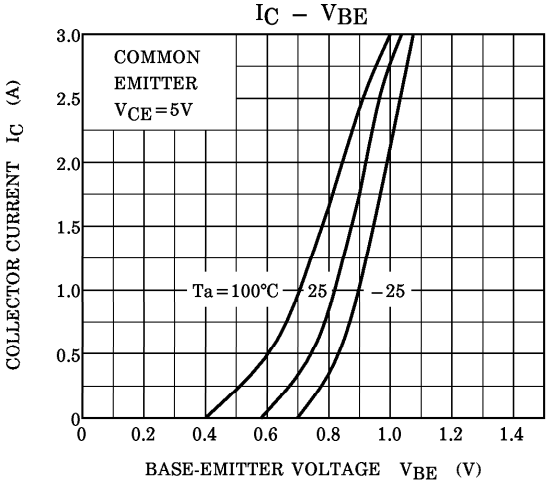
$h_{FE} - I_C$



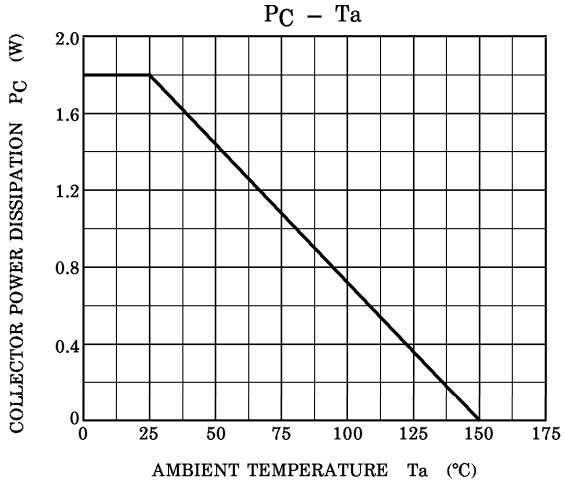
$V_{CE\,(sat)} - I_C$



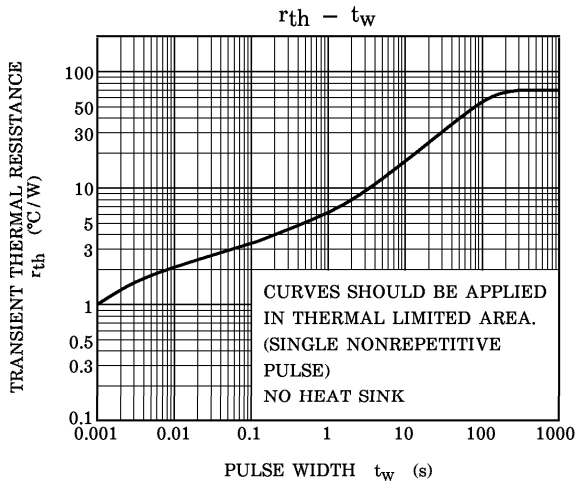
$I_C - V_{BE}$



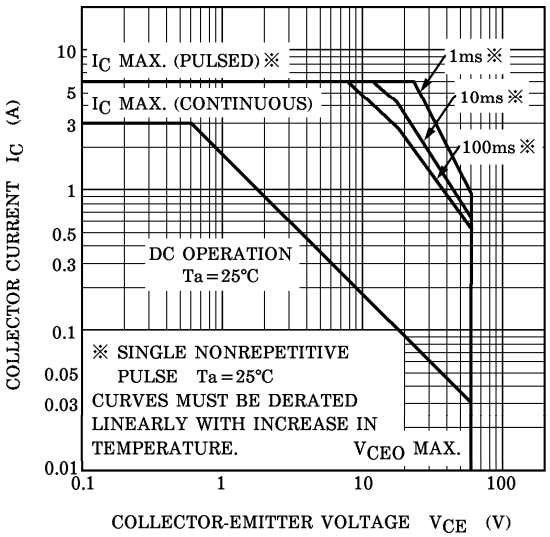
$P_C - Ta$



$r_{th} - t_w$



SAFE OPERATING AREA



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