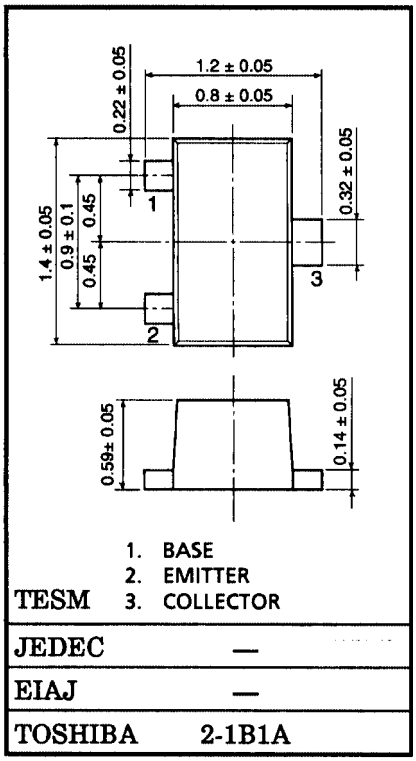
TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT process)

2 S A 1 8 3 2 F T

Audio frequency General Purpose Amplifier Applications

- High voltage: V_{CEO} = −50 V
- High current: I_C = −150 mA (max)
- High h_{FE}: h_{FE} = 120 to 400
- Excellent h_{FE} linearity: h_{FE} (I_C = −0.1 mA)/
  h_{FE} (I_C = −2 mA) = 0.95 (typ.)
- Complementary to 2SC4738F

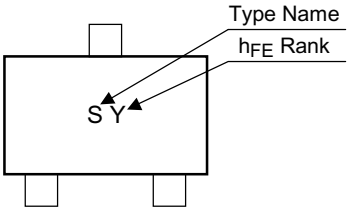
Unit in mm



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	I_C	−150	mA
Base current	I_B	−30	mW
Collector power dissipation	P_C	100	mW
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	−55 to 125	°C

Marking



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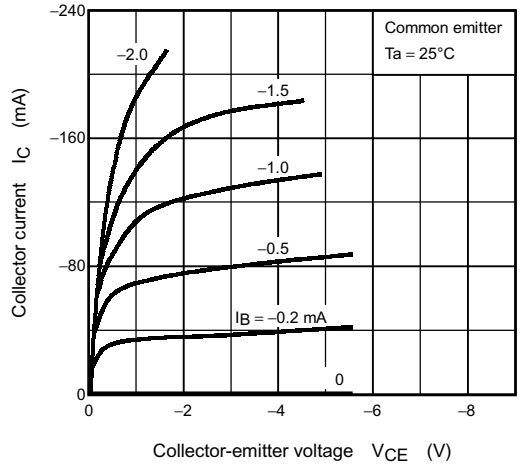
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB} = –50 V, I_E = 0	—	—	–0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB} = –5 V, I_C = 0	—	—	–0.1	μA
DC current gain	h_{FE} (Note)	V_{CE} = –6 V, I_B = –2 mA	120	—	400	
Collector-emitter saturation voltage	$V_{CE\ (sat)}$	I_C = –100 mA, I_B = –10 mA	—	–0.1	–0.3	V
Transition frequency	f_T	V_{CE} = –10 V, I_C = –1 mA	80	—	—	MHz
Collector output capacitance	C_{ob}	V_{CB} = –10 V, I_E = 0, f = 1 MHz	—	4	7	pF

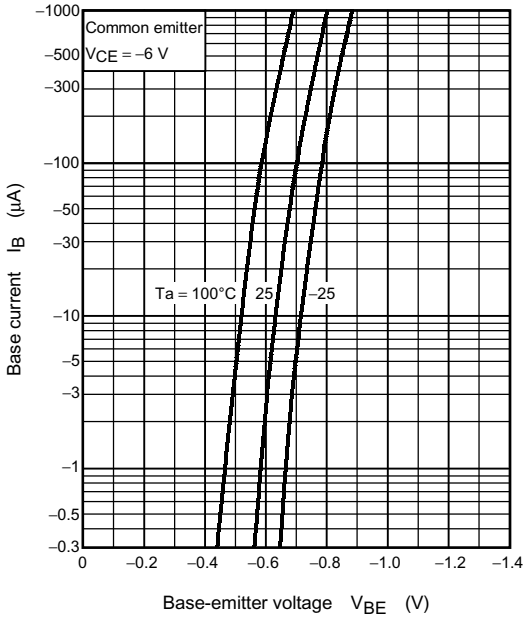
Note: h_{FE} Classification Y (Y): 120 to 140, GR (G): 200 to 400

( ) Marking symbol

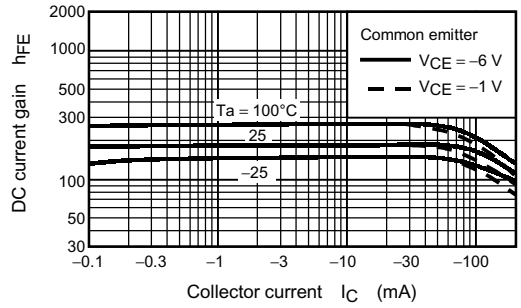
$I_C - V_{CE}$



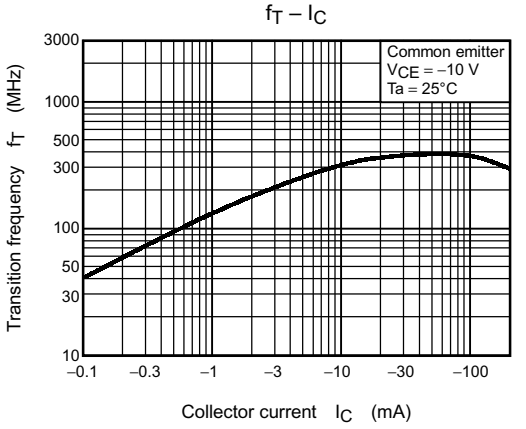
$I_B - V_{BE}$



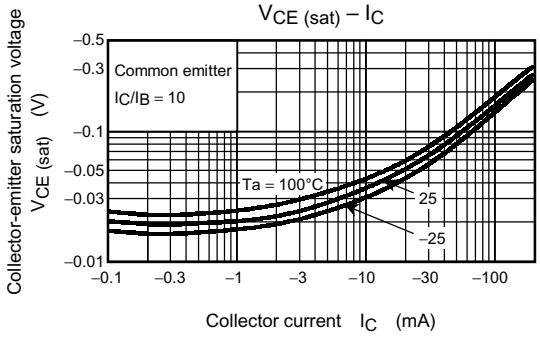
$h_{FE} - I_C$



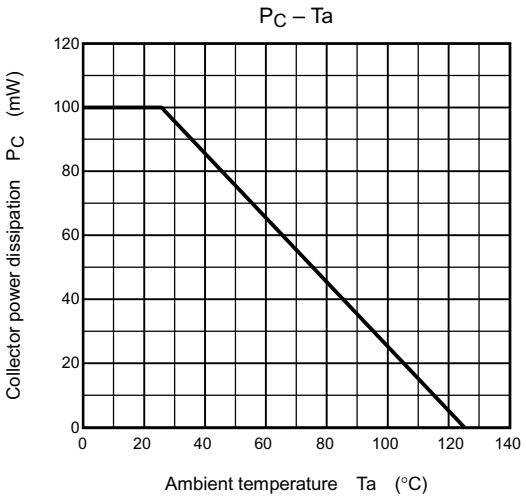
$f_T - I_C$



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



$P_C - Ta$



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