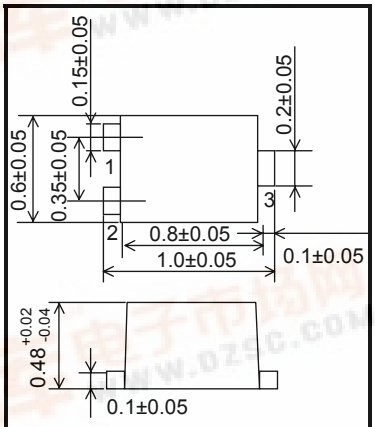
TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process)

2SA2154

General-Purpose Amplifier Applications

- High voltage and high current
  : V_{CEO} = −50 V, I_C = −100 mA (max)
- Excellent h_{FE} linearity
  : h_{FE} (I_C = −0.1 mA)/h_{FE} (I_C = −2 mA) = 0.95 (typ.)
- High h_{FE} : h_{FE} = 120~400
- Complementary to 2SC6026
- Lead (Pb) free

Unit: mm



1.BASE
2.EMITTER
3.COLLECTOR

fSM

JEDEC	—
JEITA	—
TOSHIBA	2-1E1A

Weight: 0.0006 g (typ.)

Maximum Ratings (Ta = 25°C)

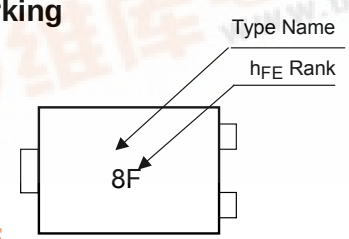
Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	−50	V
Collector-emitter voltage	V_{CEO}	−50	V
Emitter-base voltage	V_{EBO}	−5	V
Collector current	I_C	−100	mA
Base current	I_B	−30	mA
Collector power dissipation	P_C	50	mW
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	−55~150	°C

Electrical Characteristics (Ta = 25°C)

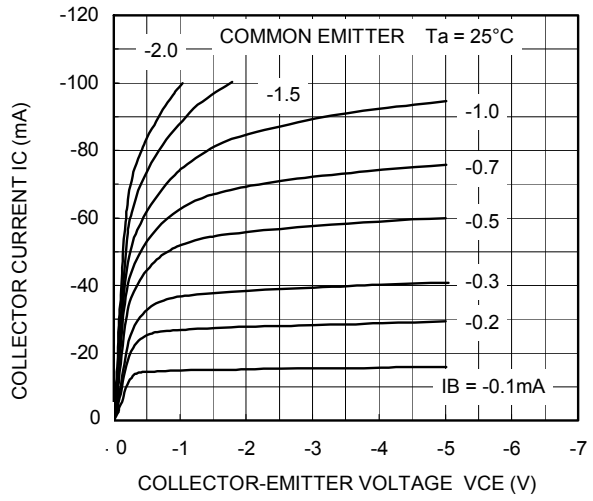
Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = −50 V, I_E = 0	—	—	−0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB} = −5 V, I_C = 0	—	—	−0.1	μA
DC current gain	h_{FE} (Note)	V_{CE} = −6 V, I_C = −2 mA	120	—	400	—
Collector-emitter saturation voltage	$V_{CE\ (sat)}$	I_C = −100 mA, I_B = −10 mA	—	−0.18	−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	—	1.6	—	pF

Note: h_{FE} classification Y (F): 120~240, GR (H): 200~400
( ) marking symbol

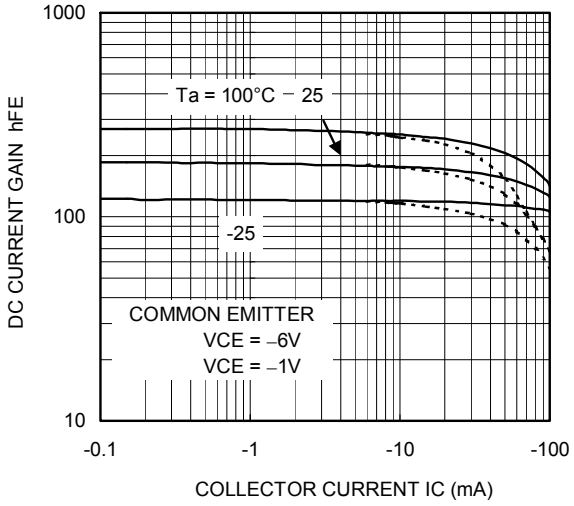
Marking



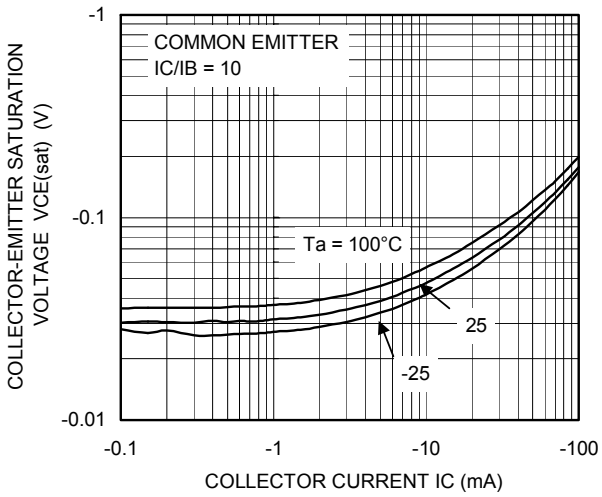
IC - VCE



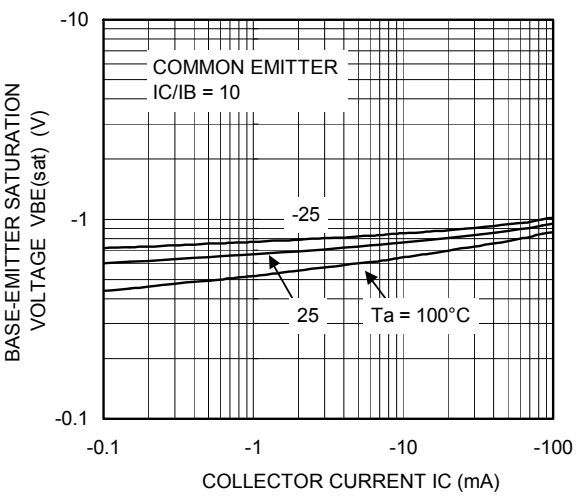
hFE - IC



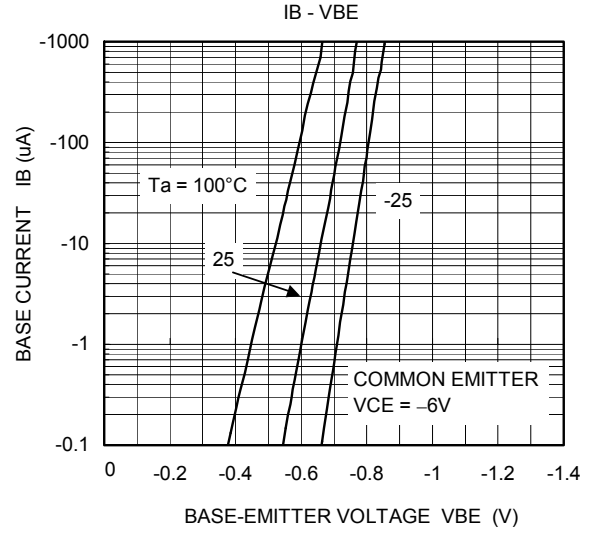
VCE(sat) - IC



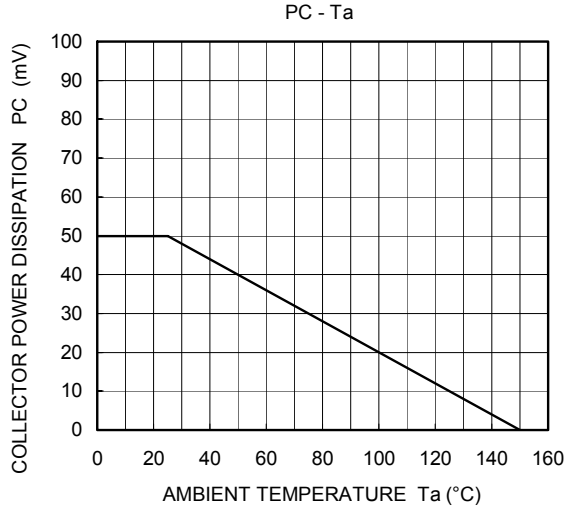
VBE(sat) - IC



IB - VBE



PC - Ta



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