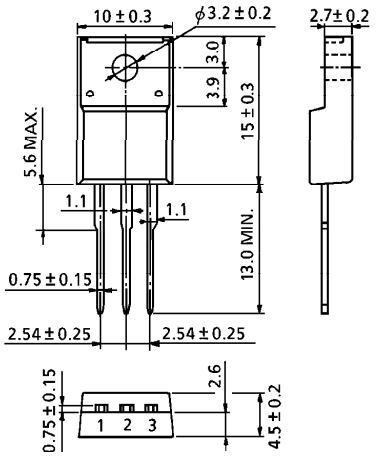
TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1869

POWER AMPLIFIER APPLICATIONS

Unit in mm

- Good Linearity of h_{FE}
- Complementary to 2SC4935



1. BASE
2. COLLECTOR (HEAT SINK)
3. EMITTER

JEDEC	—
EIAJ	SC-67
TOSHIBA	2-10R1A

Weight : 1.7g

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	−3	A
Base Current	I_B	−0.3	A
Collector Power Dissipation (Tc = 25°C)	P_C	10	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

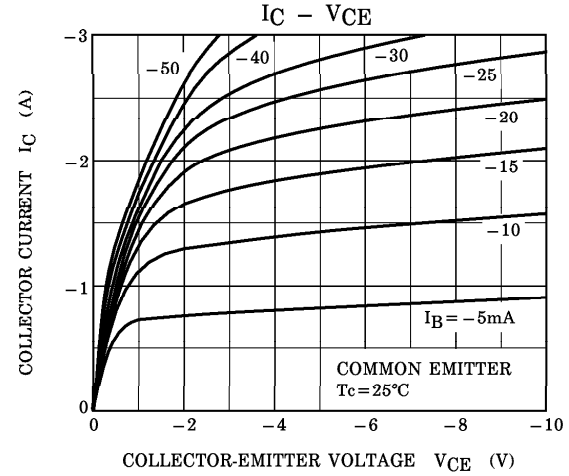
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = −50V, I_E = 0	—	—	−1.0	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = −5V, I_C = 0	—	—	−1.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = −10mA, I_B = 0	−50	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	V_{CE} = −2V, I_C = −0.5A	70	—	240	
	$h_{FE(2)}$	V_{CE} = −2V, I_C = −2.5A	30	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = −2A, I_B = −0.2A	—	−0.3	−0.6	V
Base-Emitter Voltage	V_{BE}	V_{CE} = −2V, I_C = −0.5A	—	−0.8	−1.0	V
Transition Frequency	f_T	V_{CE} = −2V, I_C = −0.5A	—	100	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = −10V, I_E = 0, f = 1MHz	—	35	—	pF

Note : $h_{FE(1)}$ Classification O : 70~140, Y : 120~240

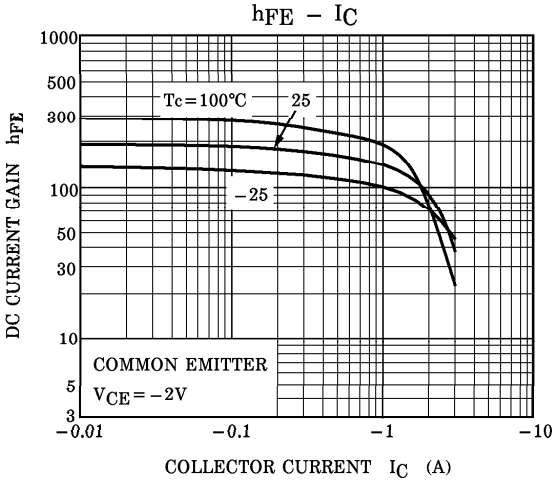
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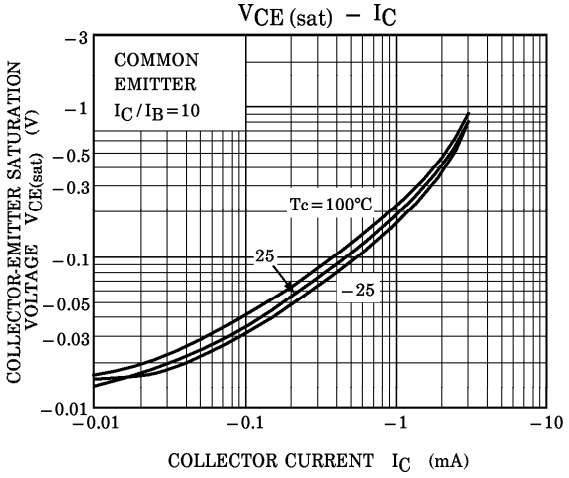
I_C – V_{CE}



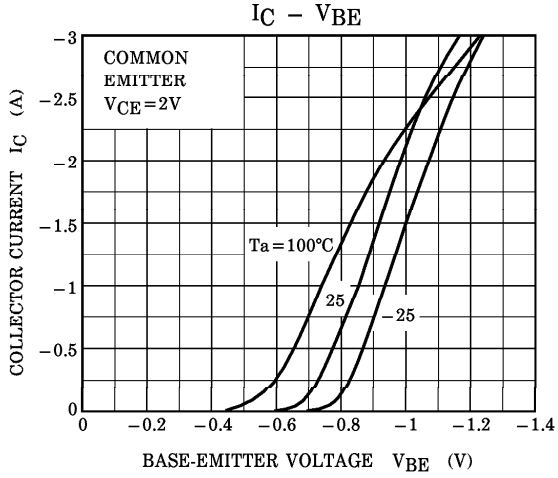
h_{FE} – I_C



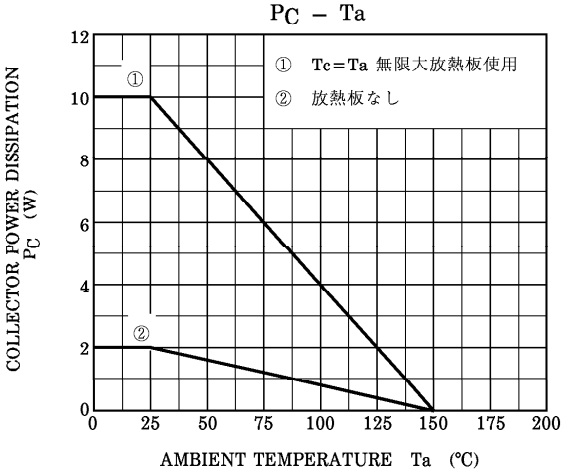
$V_{CE\,(sat)}$ – I_C



I_C – V_{BE}



P_C – Ta



SAFE OPERATING AREA

