TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

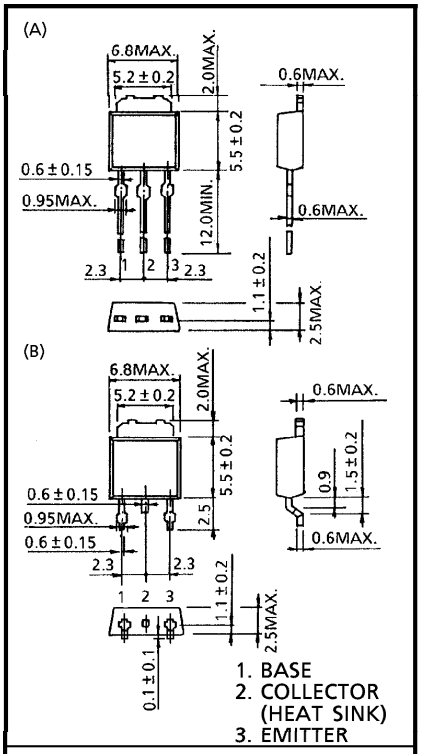
2SC3805

TV HORIZONTAL DEFLECTION OUTPUT APPLICATIONS

TV CHROMA OUTPUT APPLICATIONS

- High Voltage : V_{CEO} = 300 V
- Low Output Capacitance : C_{ob} = 3.0 pF (Typ.)

Unit in mm



JEDEC	—
EIAJ	—
TOSHIBA	(A) 2-7B1A (B) 2-7B2A

Weight : 0.36 g (Typ.)

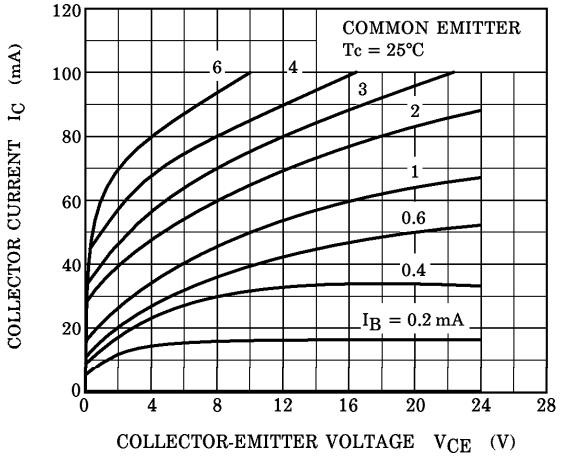
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	300	V
Collector-Emitter Voltage		V_{CEO}	300	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current	DC	I_C	100	mA
	Pulse	I_{CP}	200	
Base Current		I_B	50	mA
Collector Power Dissipation (Tc = 25°C)		P_C	10	W
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	−55~150	°C

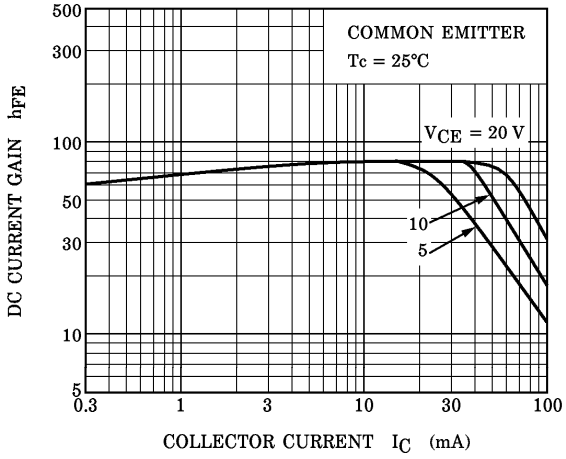
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = 240 V, I_E = 0	—	—	1.0	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 7 V, I_C = 0	—	—	1.0	mA
DC Current Gain	h_{FE} (1)	V_{CE} = 10 V, I_C = 0.5 mA	20	—	—	
	h_{FE} (2)	V_{CE} = 10 V, I_C = 20 mA	30	—	200	
Collector-Emitter Saturation Voltage	$V_{CE\ (sat)}$	I_C = 10 mA, I_B = 1 mA	—	—	1.0	V
Base-Emitter Saturation Voltage	$V_{BE\ (sat)}$	I_C = 10 mA, I_B = 1 mA	—	—	1.0	V
Transition Frequency	f_T	V_{CE} = 10 V, I_C = 20 mA	40	70	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = 20 V, I_E = 0, f = 1 MHz	—	3.0	—	pF

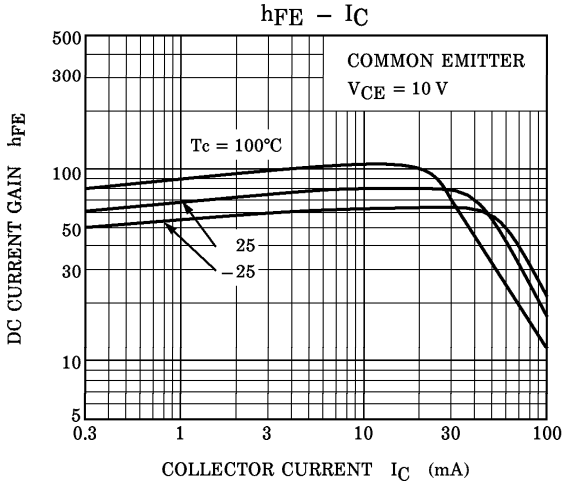
$I_C - V_{CE}$



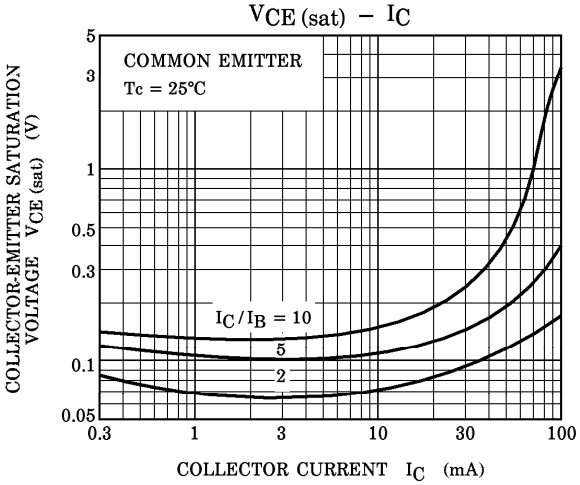
$h_{FE} - I_C$



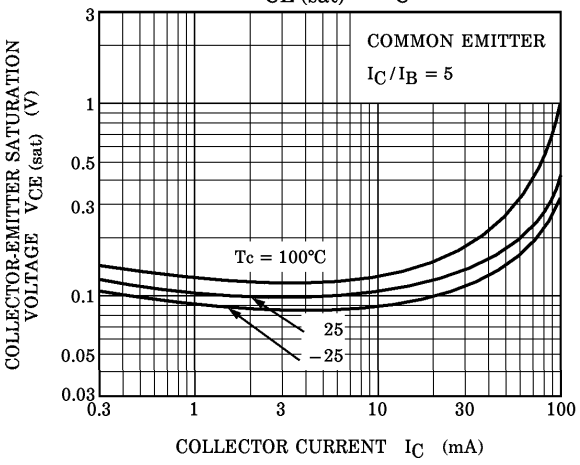
$h_{FE} - I_C$



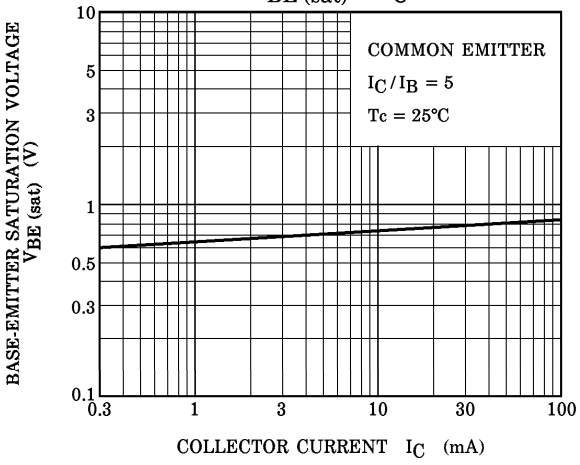
$V_{CE\,(sat)} - I_C$



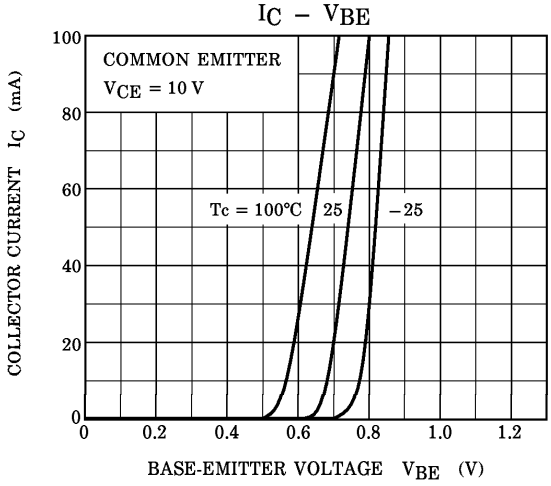
$V_{CE\,(sat)} - I_C$



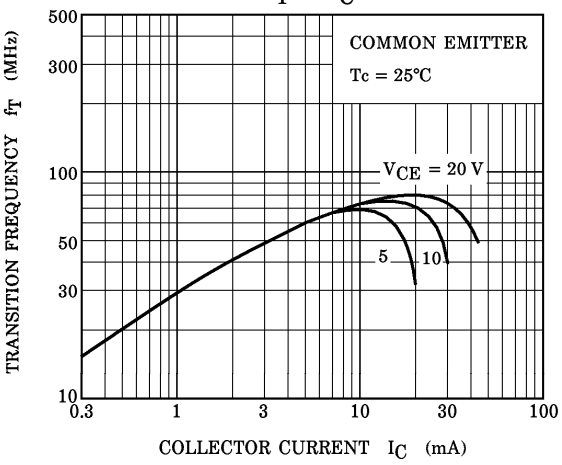
$V_{BE\,(sat)} - I_C$



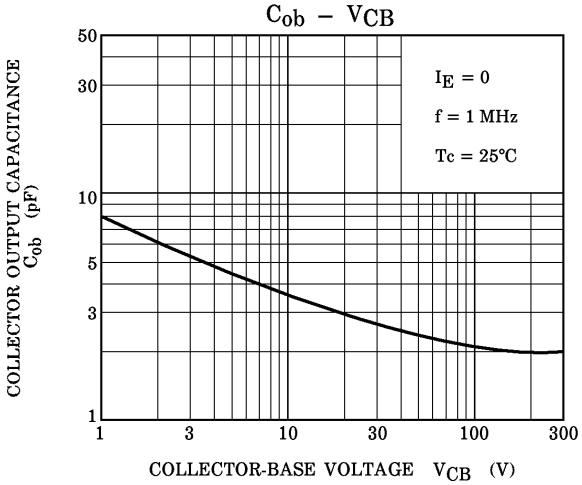
I_C – V_{BE}



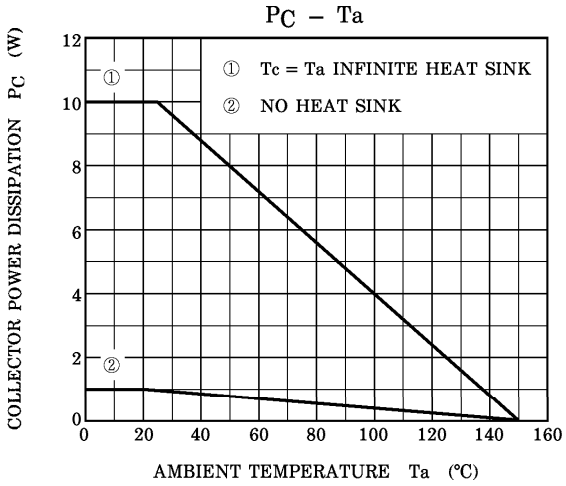
f_T – I_C



C_{ob} – V_{CB}



P_C – Ta



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