TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC3805

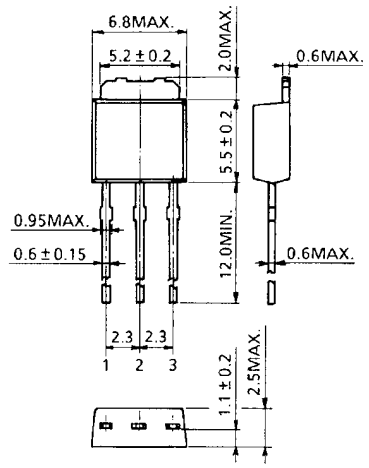
TV Horizontal Deflection Output Applications
TV Chroma Output Applications

- High voltage: V_{CEO} = 300 V
- Low output capacitance: C_{ob} = 3.0 pF (typ.)

Maximum Ratings (Ta = 25°C)

Characteristics		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 to 150	°C

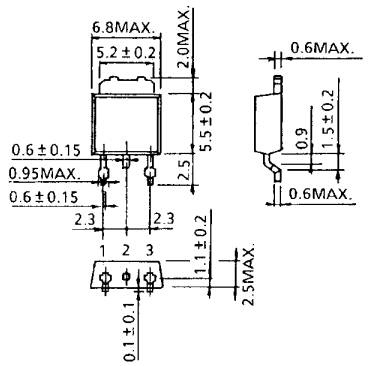
Unit: mm



1. BASE
2. COLLECTOR (HEATSINK)
3. EMITTER

JEDEC	—
JEITA	—
TOSHIBA	2-7B1A

Weight: 0.36 g (typ.)



1. BASE
2. COLLECTOR (HEATSINK)
3. EMITTER

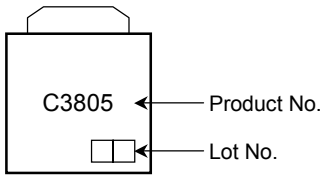
JEDEC	—
JEITA	—
TOSHIBA	2-7B2A

Weight: 0.36 g (typ.)

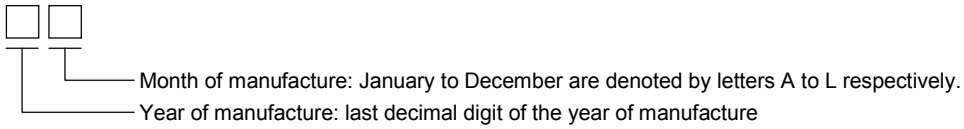
Electrical Characteristics (Ta = 25°C)

Characteristics	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

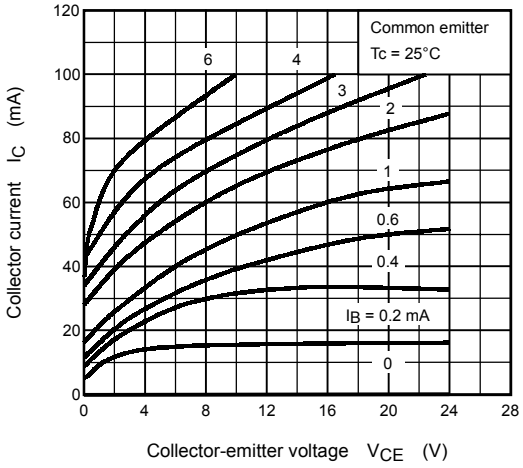
Marking



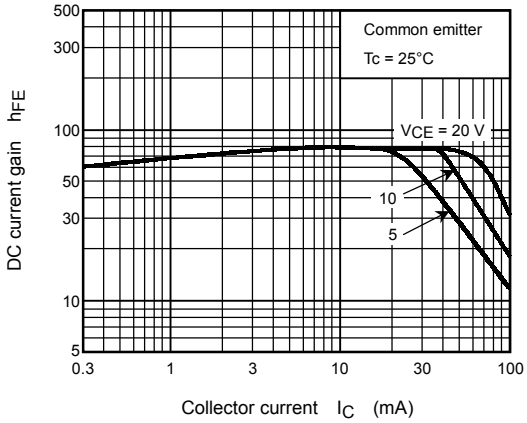
Explanation of Lot No.



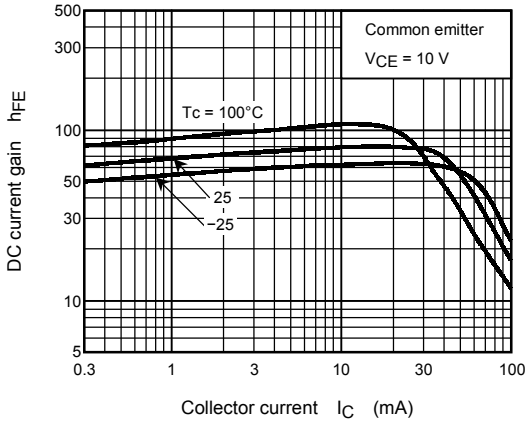
$I_C - V_{CE}$



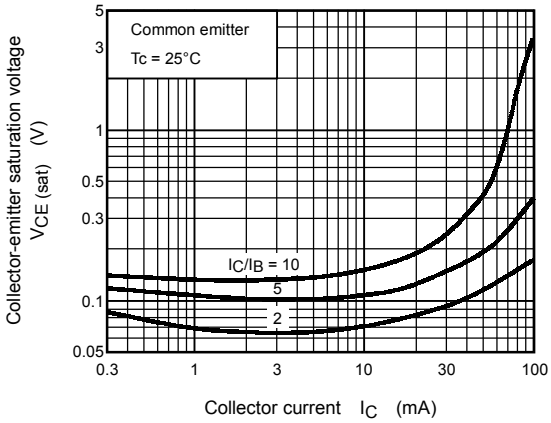
$h_{FE} - I_C$



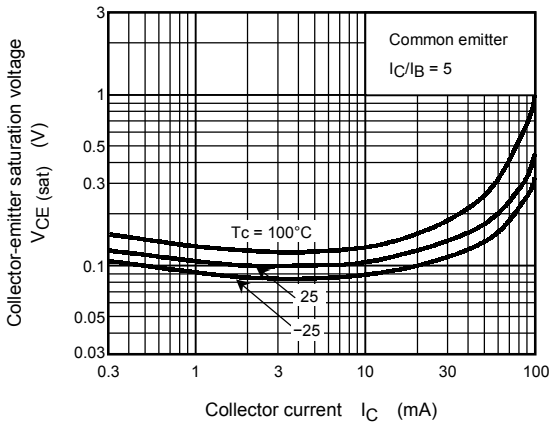
$h_{FE} - I_C$



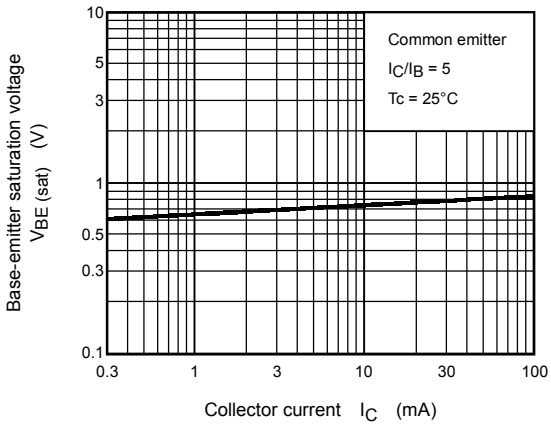
$V_{CE\ (sat)} - I_C$



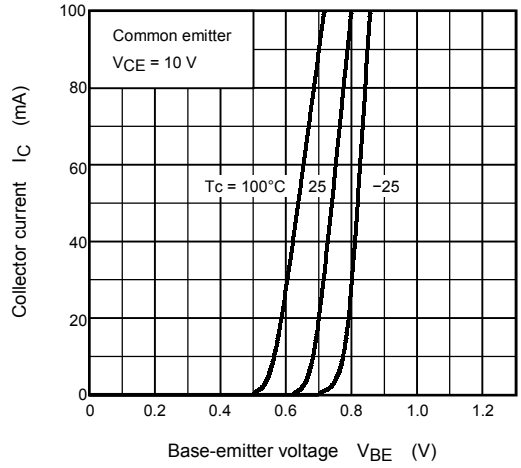
$V_{CE\ (sat)} - I_C$



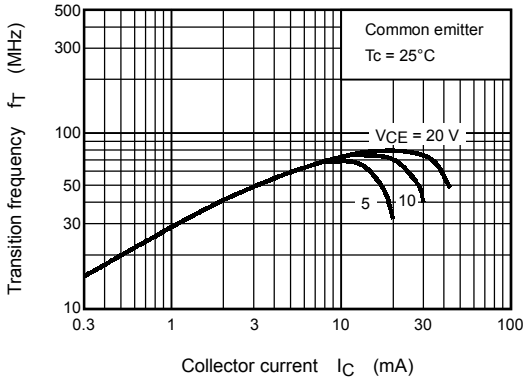
$V_{BE\ (sat)} - I_C$



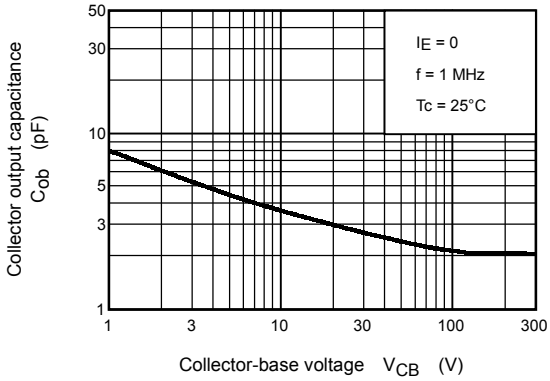
$I_C - V_{BE}$



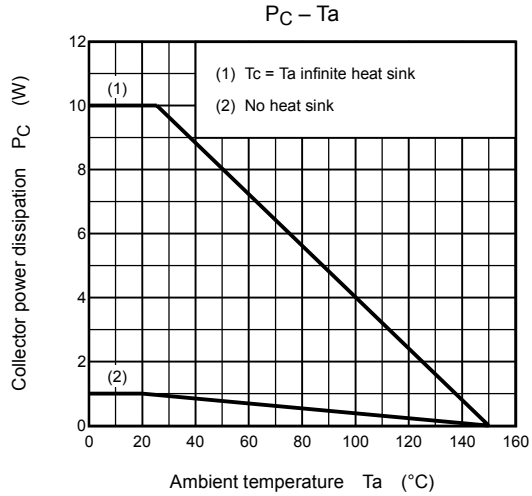
$f_T - I_C$



$C_{ob} - V_{CB}$



$P_C - Ta$



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