

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

# 2SC3805

TV HORIZONTAL DEFLECTION OUTPUT APPLICATIONS

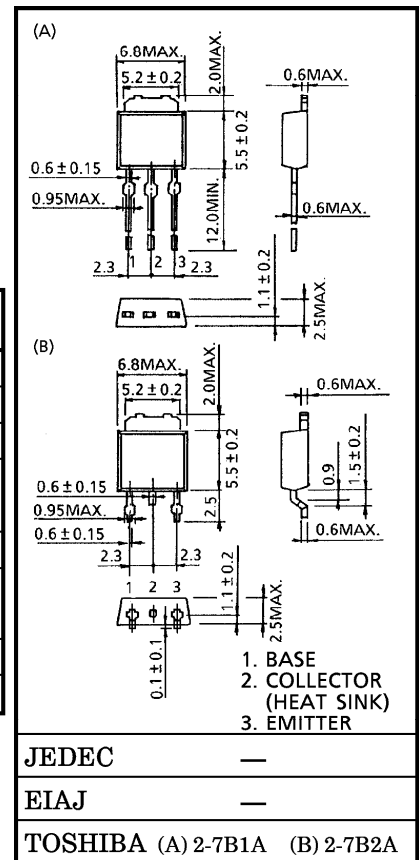
TV CHROMA OUTPUT APPLICATIONS

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

MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

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 ( $T_c = 25^\circ\text{C}$ )		$P_C$	10	W
Junction Temperature		$T_j$	150	$^\circ\text{C}$
Storage Temperature Range		$T_{stg}$	-55~150	$^\circ\text{C}$

Unit in mm



Weight : 0.36 g (Typ.)

ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

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

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