

TENTATIVE TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

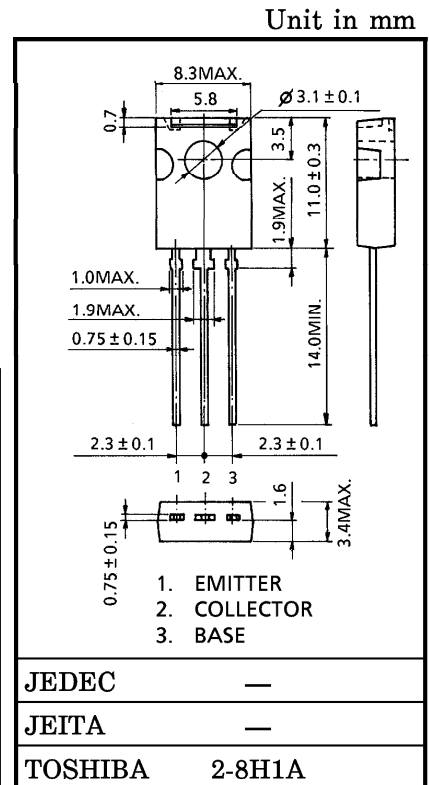
# 2SC5468

VIDEO OUTPUT STAGE IN HIGH RESOLUTION DISPLAY

- High Transition Frequency :  $f_T = 400$  MHz (Typ.)  
( $V_{CE} = 10$  V,  $I_C = 50$  mA)
- Low Collector Output Capacitance :  $C_{ob} = 3$  pF (Typ.)  
( $V_{CB} = 30$  V)
- High Voltage :  $V_{CEO} = 120$  V

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		$V_{CBO}$	120	V
Collector-Emitter Voltage		$V_{CEO}$	120	V
Emitter-Base Voltage		$V_{EBO}$	5	V
Collector Current	DC	$I_C$	0.3	A
	Pulse	$I_{CP}$	0.5	
Base Current		$I_B$	0.1	A
Collector Power Dissipation	$T_a = 25^\circ\text{C}$	$P_C$	1.5	W
	$T_c = 25^\circ\text{C}$		8	
Junction Temperature		$T_j$	150	$^\circ\text{C}$
Storage Temperature Range		$T_{stg}$	-55~150	$^\circ\text{C}$



Weight : 0.82 g (Typ.)

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 120$ V, $I_E = 0$	—	—	100	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 5$ V, $I_C = 0$	—	—	1	$\mu\text{A}$
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1$ mA, $I_B = 0$	120	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10$ mA, $I_B = 0$	120	—	—	V
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 10$ V, $I_C = 50$ mA	40	—	240	
	$h_{FE(2)}$	$V_{CE} = 10$ V, $I_C = 200$ mA	25	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 50$ mA, $I_B = 5$ mA	—	—	1.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 50$ mA, $I_B = 5$ mA	—	—	1.0	V
Transition Frequency	$f_T$	$V_{CE} = 10$ V, $I_C = 50$ mA	—	400	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 30$ V, $f = 1$ MHz, $I_E = 0$	—	3.0	5.0	pF

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