

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE

# 2SC4679

HDTV CHROMA OUTPUT APPLICATIONS.

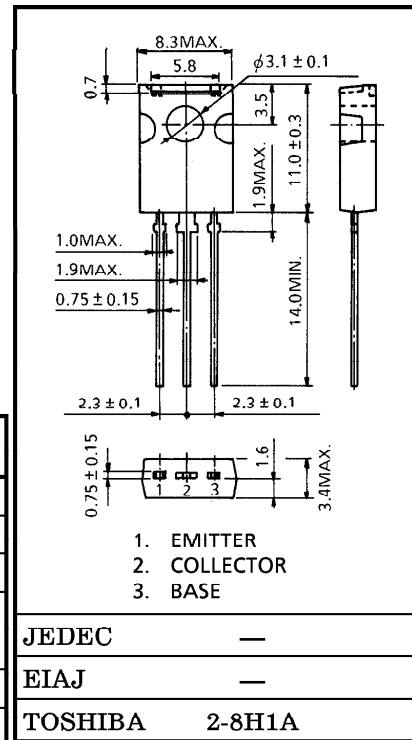
VIDEO OUTPUT STAGE IN HIGH RESOLUTION DISPLAY.

- High Transition Frequency :  $f_T = 240\text{MHz}$
- Small Collector Output Capacitance :  $C_{ob} = 2.4\text{pF}$  (Typ.) ( $V_{CB} = 30\text{V}$ )
- High Voltage :  $V_{CEO} = 300\text{V}$
- Collector Metal (Fin) is Fully Covered with Mold Resin

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		$V_{EBO}$	5	V
Collector Current	DC	$I_C$	50	mA
	Pulse	$I_{CP}$	100	
Base Current		$I_B$	5	mA
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	$^\circ\text{C}$

Unit in mm



Weight : 0.82g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 300\text{V}, I_E = 0$	—	—	100	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 5\text{V}, I_C = 0$	—	—	10	$\mu\text{A}$
DC Current Gain	$h_{FE} (1)$	$V_{CE} = 10\text{V}, I_C = 10\text{mA}$	80	—	200	
	$h_{FE} (2)$	$V_{CE} = 10\text{V}, I_C = 30\text{mA}$	70	—	—	
Collector-Emitter Saturation Voltage	$V_{CE} (\text{sat})$	$I_C = 20\text{mA}, I_B = 2\text{mA}$	—	—	0.5	V
Base-Emitter Saturation Voltage	$V_{BE} (\text{sat})$	$I_C = 20\text{mA}, I_B = 2\text{mA}$	—	—	1.0	V
Transition Frequency	$f_T$	$V_{CE} = 10\text{V}, I_C = 20\text{mA}$	—	240	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 30\text{V}, f = 1\text{MHz}, I_E = 0$	—	2.4	3.0	pF

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