

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

# 2SC5460

DYNAMIC FOCUS APPLICATIONS

HIGH VOLTAGE SWITCHING APPLICATIONS

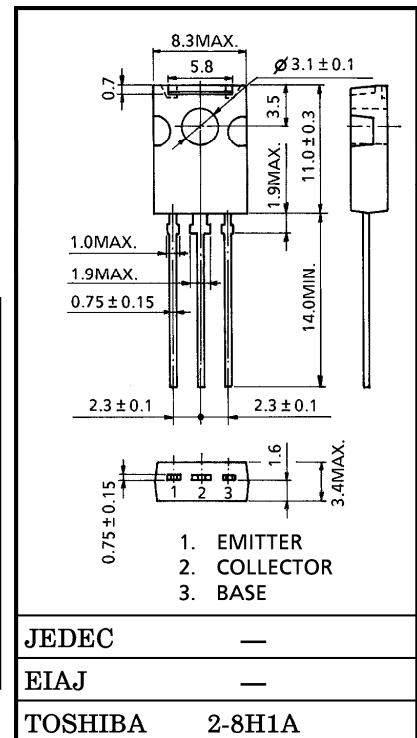
HIGH VOLTAGE AMPLIFIER APPLICATIONS

- High Voltage :  $V_{CEO} = 800\text{ V}$

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	800	V
Collector-Emitter Voltage	$V_{CEO}$	800	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	50	mA
Base Current	$I_B$	25	mA
Collector Power Dissipation	$P_C$	$T_a = 25^\circ\text{C}$ 1.5	W
		$T_c = 25^\circ\text{C}$ 10	
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ\text{C}$

Unit in mm



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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 640\text{ V}, I_E = 0$	—	—	1.0	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 5\text{ V}, I_C = 0$	—	—	10	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE} = 5\text{ V}, I_C = 7\text{ mA}$	15	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 20\text{ mA}, I_B = 4\text{ mA}$	—	—	1.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 20\text{ mA}, I_B = 4\text{ mA}$	—	—	1.5	V
Transition Frequency	$f_T$	$V_{CE} = 10\text{ V}, I_C = 3\text{ mA}$	—	5.5	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 100\text{ V}, f = 1\text{ MHz}$	—	2.2	—	pF

(Note) : When an external heat sink is used for the device, insulate using, for example, silicone rubber. When an external heat sink is not used, Toshiba recommends that the plastic part should be at least 2mm away from its surroundings.

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