

TOSHIBA

2SC3963

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

2SC3963

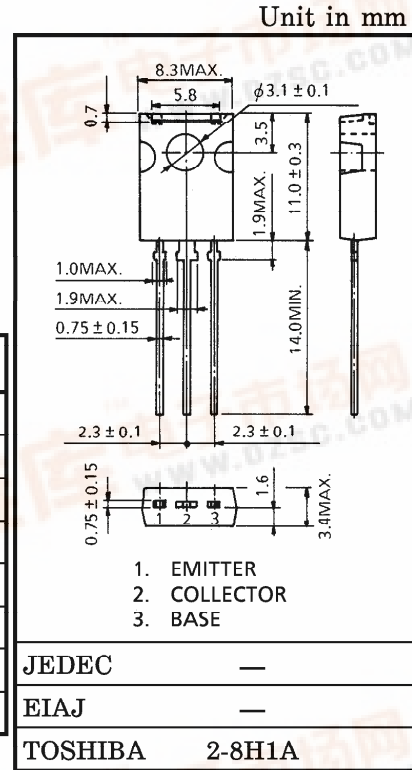
HIGH VOLTAGE GENERAL AMPLIFIER APPLICATIONS

COLOR TV CLASS B SOUND OUTPUT APPLICATIONS

- High Voltage : $V_{CEO} = 160V$

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	200	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	200	mA
Base Current	I_B	100	mA
Collector Power Dissipation	P_C	1.5	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



Weight : 1.4g (Typ.)

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 200V, I_E = 0$	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$	—	—	0.1	μA
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = 10V, I_C = 50mA$	100	—	320	
	$h_{FE(2)}$	$V_{CE} = 10V, I_C = 150mA$	80	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 200mA, I_B = 20mA$	—	—	1.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = 10V, I_C = 5mA$	0.55	0.65	0.75	V
Transition Frequency	f_T	$V_{CE} = 10V, I_C = 50mA$	50	—	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	—	—	10	pF

Note : $h_{FE(1)}$ Classification O : 100~200, Y : 160~320

961001FAA2

TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.

