TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED MESA TYPE

# 2SC5612

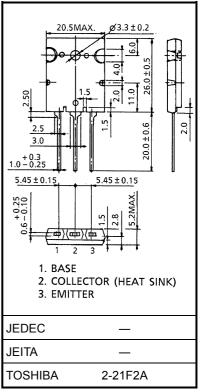
#### HORIZONTAL DEFLECTION OUTPUT FOR COLOR TV

Unit: mm

- High Voltage :  $V_{CBO} = 2000 V$
- Low Saturation Voltage : V<sub>CE</sub> (sat) = 3 V (Max.)
- High Speed
- :  $t_f = 0.15 \mu s$  (Typ.)

#### MAXIMUM RATINGS (Tc = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT	
Collector-Base Voltage		V <sub>CBO</sub>	2000	V	
Collector-Emitter Voltage		V <sub>CEO</sub>	900	V	
Emitter-Base Voltage		V <sub>EBO</sub>	5	V	
Collector Current	DC	Ι <sub>C</sub>	22	A	
	Pulse	I <sub>CP</sub>	44		
Base Current		Ι <sub>Β</sub>	11	А	
Collector Power Dissipation		P <sub>C</sub>	220	W	
Junction Temperature		Тј	150	°C	
Storage Temperature Range		T <sub>stg</sub>	-55~150	°C	

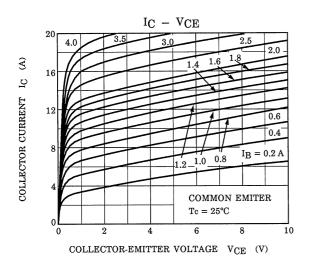


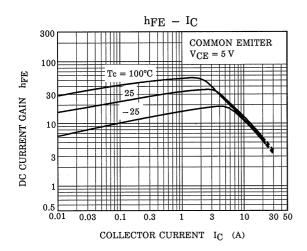
### ELECTRICAL CHARACTERISTICS (Tc = 25°C)

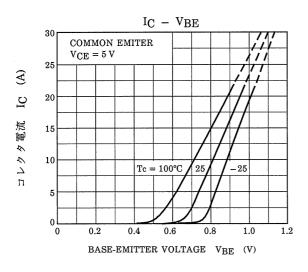
Weight: 9.75 g (typ.)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Collector Cut-off Current		I <sub>CBO</sub>	$V_{CB} = 2000 V, I_E = 0$	_	_	1	mA
Emitter Cut-off Current		I <sub>EBO</sub>	V <sub>EB</sub> = 5 V, I <sub>C</sub> = 0	-	-	100	μA
Collector-Emitter Breakdown Voltage		V (BR) CEO	I <sub>C</sub> = 10 mA, I <sub>B</sub> = 0	900	_	—	V
DC Current Gain		h <sub>FE (1)</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 2 A	15	_	50	_
		h <sub>FE (2)</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 9 A	9.5	-	18.5	
		h <sub>FE (3)</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 17 A	4.8	-	9.0	
Collector-Emitter Saturation Voltage		V <sub>CE (sat)</sub>	I <sub>C</sub> = 17 A, I <sub>B</sub> = 4.25 A	-	-	3	V
Base-Emitter Saturation Voltage		V <sub>BE (sat)</sub>	I <sub>C</sub> = 17 A, I <sub>B</sub> = 4.25 A	-	_	1.3	V
Transition Frequency		f <sub>T</sub>	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 0.1 A	_	2	_	MHz
Collector Output Capacitance		C <sub>ob</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1 MHz	_	470	_	pF
Switching Time	Storage Time	t <sub>stg</sub>	I <sub>CP</sub> = 8 A, I <sub>B1</sub> (end) = 1A f <sub>H</sub> = 32 kHz	_	4.0	5.0	μs
	Fall Time	t <sub>f</sub>		_	0.15	0.35	

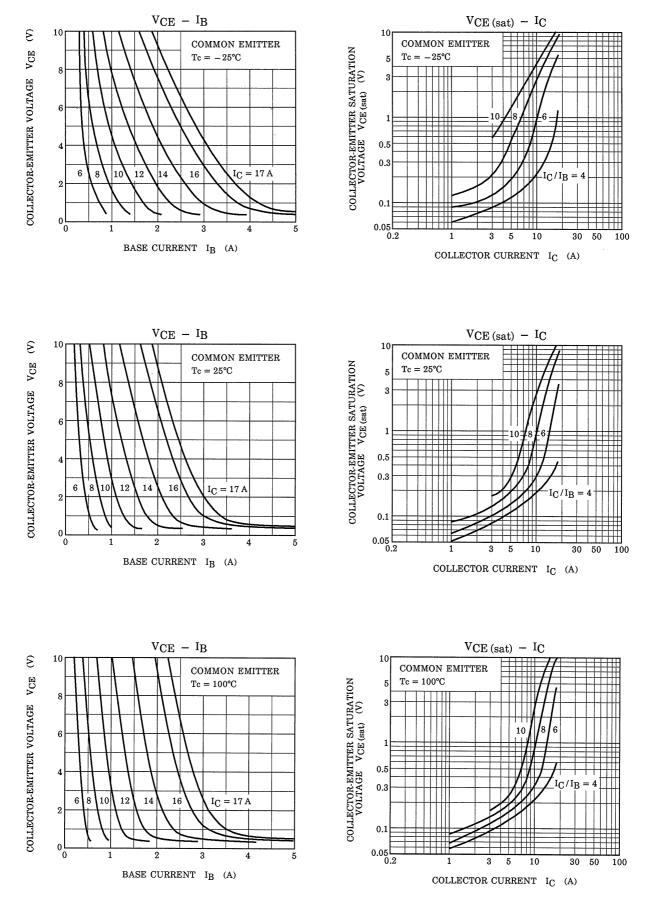
## **TOSHIBA**





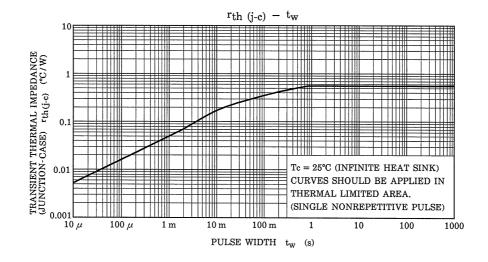


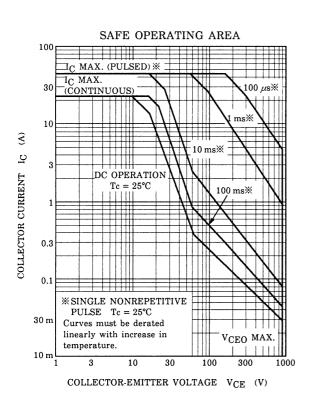
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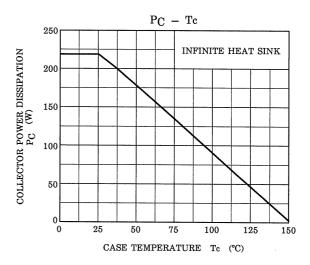


2001-08-20

# TOSHIBA







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