#### TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED MESA TYPE

# 2SC5612

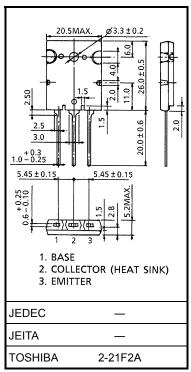
#### HORIZONTAL DEFLECTION OUTPUT FOR COLOR TV

Unit: mm

### **ABSOLUTE 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	I <sub>C</sub>	22	Α	
	Pulse	I <sub>CP</sub>	44		
Base Current		lΒ	11	Α	
Collector Power Dissipation		PC	220	W	
Junction Temperature		Tj	150	°C	
Storage Temperature Range		T <sub>stg</sub>	-55~150	°C	

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the



Weight: 9.75 g (typ.)

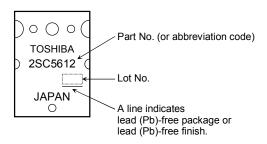
reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

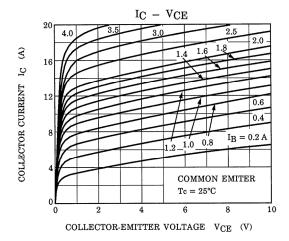
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/Derating Concept and Methods) and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

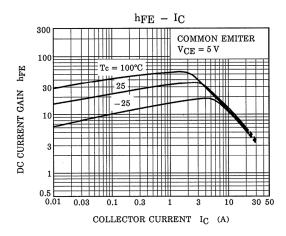
# ELECTRICAL CHARACTERISTICS (Tc = 25°C)

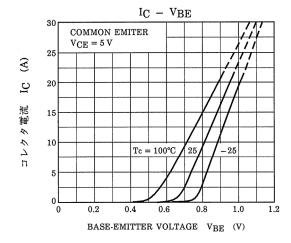
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Collector Cut-off Current		I <sub>CBO</sub>	V <sub>CB</sub> = 2000 V, I <sub>E</sub> = 0	_	_	1	mA
Emitter Cut-off Current		I <sub>EBO</sub>	V <sub>EB</sub> = 5 V, I <sub>C</sub> = 0	_	_	100	μA
Collector-Emitter Breakdown Voltage		V (BR) CEO	I <sub>C</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	

## **MARKING**

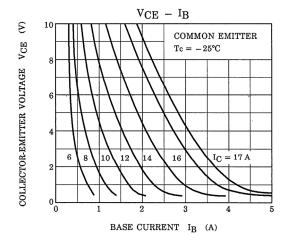


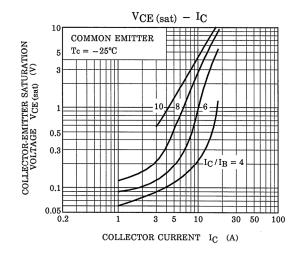


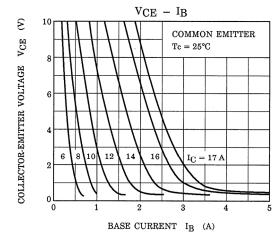


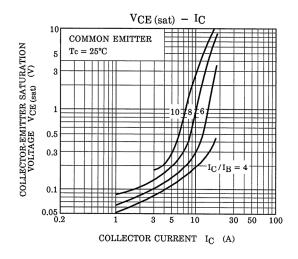


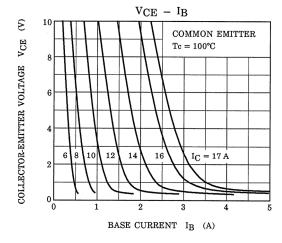
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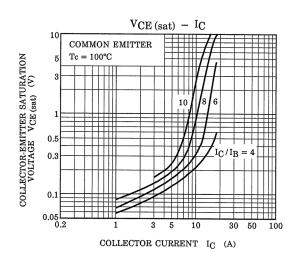


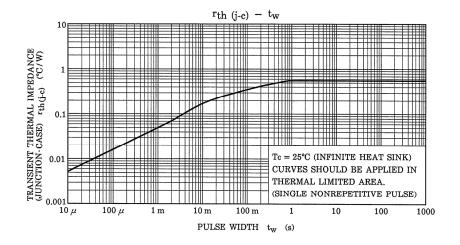


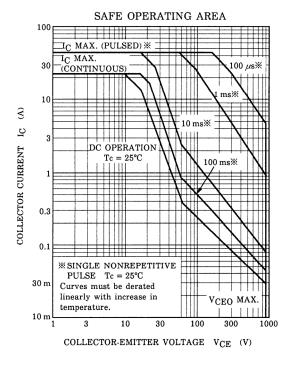


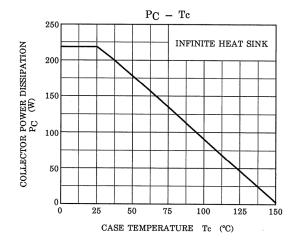












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