Unit: mm

### TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED MESA TYPE

# 2SC5857

# HORIZONTAL DEFLECTION OUTPUT FOR HDTV, DIGITAL TV, PROJECTION TV

## **MAXIMUM RATINGS (Tc = 25°C)**

CHARACTERISTIC		SYMBOL	RATING	UNIT	
Collector-Base Voltage		$V_{CBO}$	1700	V	
Collector-Emitter Voltage		V <sub>CEO</sub>	750	V	
Emitter-Base Voltage		V <sub>EBO</sub>	5	V	
Collector Current	DC	I <sub>C</sub>	21	Α	
	Pulse	I <sub>CP</sub>	42		
Base Current		ΙB	10.5	Α	
Collector Power Dissipation		PC	75	W	
Junction Temperature		Tj	150	°C	
Storage Temperature Range		T <sub>stg</sub>	-55~150	°C	

# 15.5±0.5 Ø3.6±0.3 3.0±0.3 15.5±0.5 Ø3.6±0.3 15.5±0.5 Ø3.6±0.3 15.5±0.5 Ø3.6±0.3 15.5±0.5 Ø3.6±0.3 15.5±0.5 Ø3.6±0.3 16.0 Ø3.0±0.3 17.0 Ø3.0±0.3 18.0 Ø3.

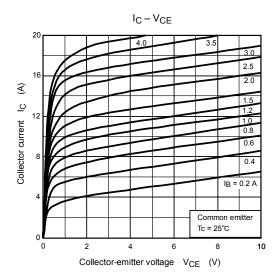
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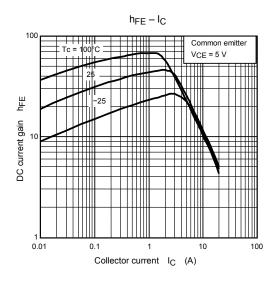
Weight: 5.5 g (typ.)

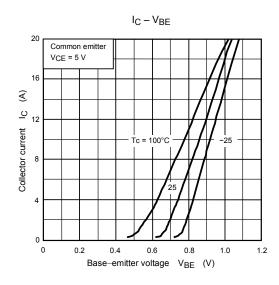
JEDEC JEITA TOSHIBA

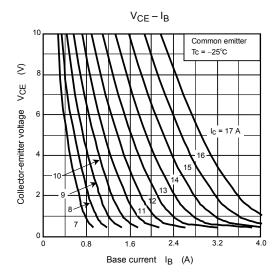
# **ELECTRICAL CHARACTERISTICS (Tc = 25°C)**

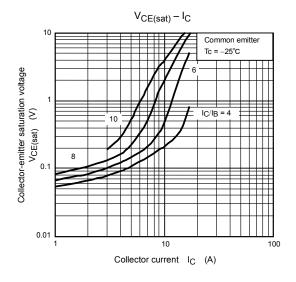
CHARACTERISTIC		SYMBOL	TEST CONDITION	Min	Тур.	Max	UNIT
Collector Cut-off Current		I <sub>CBO</sub>	V <sub>CB</sub> = 1700 V, I <sub>E</sub> = 0	_	_	1	mA
Emitter Cut-off Current		I <sub>EBO</sub>	V <sub>EB</sub> = 5 V, I <sub>C</sub> = 0	_	_	100	μΑ
Collector - Emitter Breakdown Voltage		V (BR) CEO	I <sub>C</sub> = 10 mA, I <sub>B</sub> = 0	750	_	_	V
DC Current Gain		h <sub>FE (1)</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 2 A	30	_	60	_
		h <sub>FE (2)</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 8 A	11	_	19	
		h <sub>FE (3)</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 17 A	5	_	7.5	
Collector-Emitter Saturation Voltage		V <sub>CE (sat)</sub>	I <sub>C</sub> = 17 A, I <sub>B</sub> = 4.25 A	_	_	1.5	V
Base-Emitter Saturation Voltage		V <sub>BE (sat)</sub>	I <sub>C</sub> = 17 A, I <sub>B</sub> = 4.25 A	_	1.0	1.5	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	_	280	_	pF
Switching Time	Storage Time	t <sub>stg(1)</sub>	I <sub>CP</sub> = 9 A , I <sub>R1</sub> (end) = 1.4 A	_	4.5	_	μs
	Fall Time	t <sub>f(1)</sub>	f <sub>H</sub> = 32 kHz	_	0.1	_	
	Storage Time	t <sub>stg(2)</sub>	I <sub>CP</sub> = 8 A, I <sub>B1</sub> (end) = 1.2 A		3.5	_	- µs
	Fall Time	t <sub>f(2)</sub>	f <sub>H</sub> = 45 kHz	_	0.1	_	

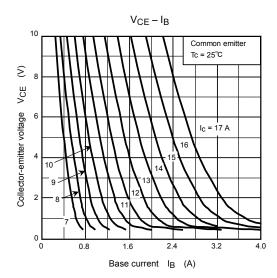


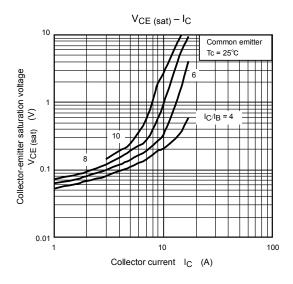


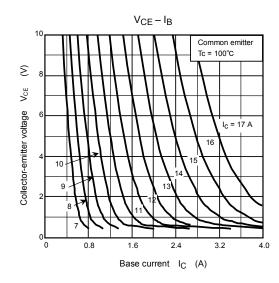


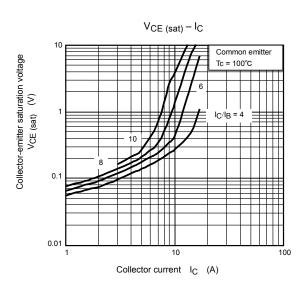


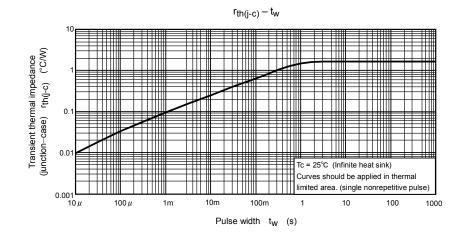


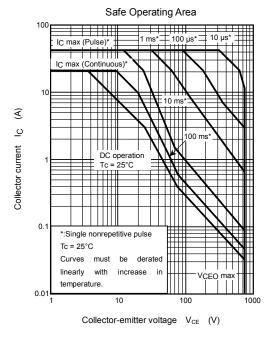


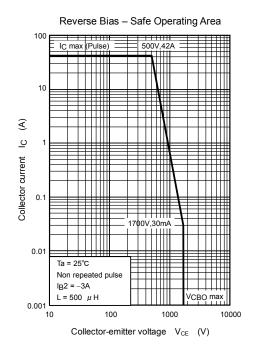


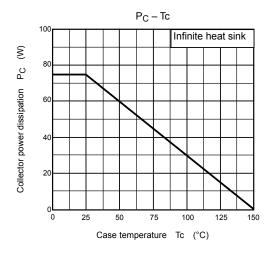












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Handbook" etc..

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