TOSHIBA Transistor Silicon NPN Triple Diffused Type (PCT process)

# 2SC4497

#### **High Voltage Control Applications**

• High voltage:  $V_{CBO} = 300 \text{ V}$ ,  $V_{CEO} = 300 \text{ V}$ 

• Low saturation voltage:  $V_{CE (sat)} = 0.5 \text{ V (max)}$ 

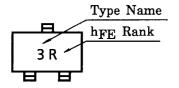
• Small collector output capacitance:  $C_{ob} = 3 pF$  (typ.)

• Complementary to 2SA1721

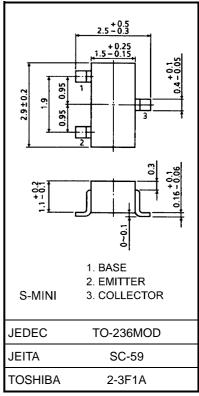
### Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	300	V
Collector-emitter voltage	V <sub>CEO</sub>	300	V
Emitter-base voltage	V <sub>EBO</sub>	6	V
Collector current	IC	100	mA
Base current	ΙΒ	20	mA
Collector power dissipation	PC	200	mW
Junction temperature	Tj	150	°C
Storage temperature range	T <sub>stg</sub>	-55~150	°C

## Marking



Unit: mm



Weight: 0.012 g (typ.)

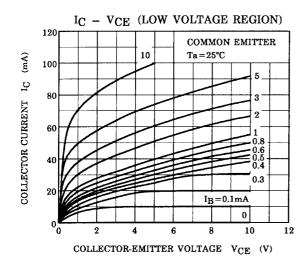


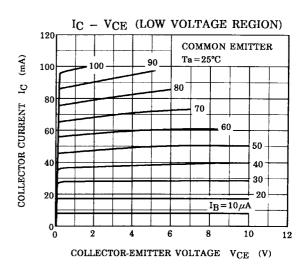
## Electrical Characteristics (Ta = 25°C)

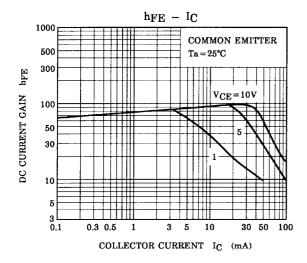
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I <sub>CBO</sub>	$V_{CB} = 300 \text{ V}, I_{E} = 0$	_	_	0.1	μΑ
Emitter cut-off current	I <sub>EBO</sub>	$V_{EB} = 6 \text{ V}, I_{C} = 0$		_	0.1	μΑ
Collector-base breakdown voltage	V (BR) CBO	$I_C = 0.1 \text{ mA}, I_E = 0$	300	_		V
Collector-emitter breakdown voltage	V (BR) CEO	$I_C = 1 \text{ mA}, I_B = 0$	300	_	_	V
DC current gain	h <sub>FE (1)</sub> (Note)	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 20 mA	30		150	
	h <sub>FE</sub> (2)	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 1 mA	20	_	_	
Collector-emitter saturation voltage	V <sub>CE</sub> (sat)	$I_C = 20 \text{ mA}, I_B = 2 \text{ mA}$	_	_	0.5	V
Base-emitter saturation voltage	V <sub>BE</sub> (sat)	$I_C = 20 \text{ mA}, I_B = 2 \text{ mA}$	_	_	1.2	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 10 mA	_	70	_	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 20 V, I <sub>E</sub> = 0, f = 1 MHz	_	3	4	pF

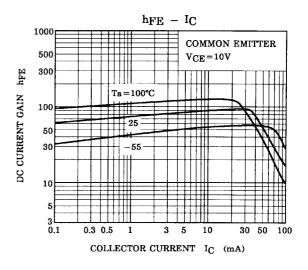
Note:  $h_{FE(1)}$  classification R: 30~90, O: 50~150

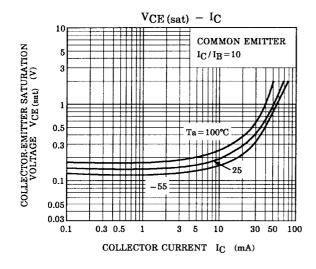
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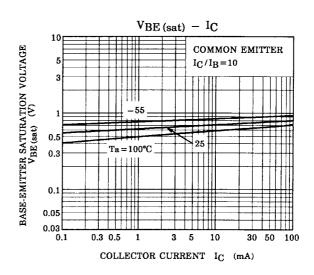




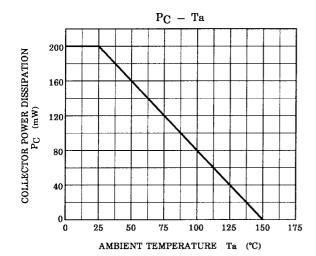








3



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