# <u>TOSHIBA</u>

TOSHIBA Transistor Silicon NPN Triple Diffused Mesa Type

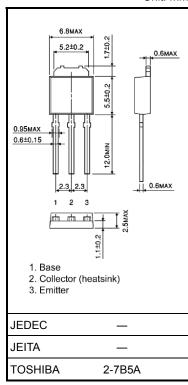
# 2SC5355

High Voltage Switching Applications Switching Regulator Applications DC-DC Converter Applications

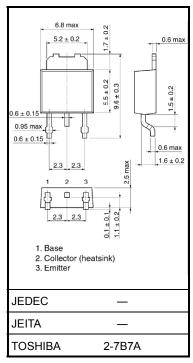
- Excellent switching times:  $t_r$  = 0.5  $\mu s$  (max),  $t_f$  = 0.3  $\mu s$  (max)
- High collector breakdown voltage:  $V_{CEO} = 400 \text{ V}$
- High DC current gain: hFE = 20 (min)

#### Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit	
Collector-base voltage		V <sub>CBO</sub>	600	V	
Collector-emitter voltage		V <sub>CEO</sub>	400	V	
Emitter-base voltage		V <sub>EBO</sub>	7	V	
Collector current	DC	Ι <sub>C</sub>	5	A	
	Pulse	I <sub>CP</sub>	7		
Base current		Ι <sub>Β</sub>	1	А	
Collector power dissipation	Ta = 25°C	Pc	1.5	w	
	Tc = 25°C	гC	25		
Junction temperature		Тј	150	°C	
Storage temperature range		T <sub>stg</sub>	-55~150	°C	



Weight: 0.36 g (typ.)



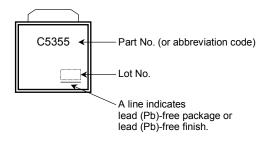
Weight: 0.36 g (typ.)



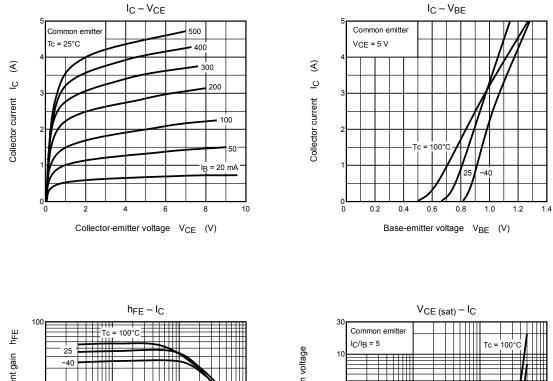
## Electrical Characteristics (Ta = 25°C)

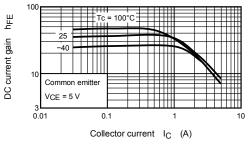
Characteristics		Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current		I <sub>CBO</sub>	V <sub>CB</sub> = 480 V, I <sub>E</sub> = 0	_	—	100	μA
Emitter cut-off cu	tter cut-off current $I_{EBO}$ $V_{EB}$ = 7 V, I <sub>C</sub> = 0		_	_	10	μA	
Collector-base breakdown voltage		V (BR) CBO	I <sub>C</sub> = 1 mA, I <sub>E</sub> = 0	600	_	_	V
Collector-emitter	ector-emitter breakdown voltage V (BR) CEO IC = 10 mA, IB = 0		400	_	_	V	
DC current gain		h <sub>FE (1)</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 1 mA	12	_	_	
		h <sub>FE (2)</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 0.5 A	20	_	65	
Collector-emitter	ollector-emitter saturation voltage $V_{CE (sat)}$ $I_C = 2 A$ , $I_B = 0.25 A$		_	_	1.0	V	
Base-emitter saturation voltage		V <sub>BE (sat)</sub>	I <sub>C</sub> = 2 A, I <sub>B</sub> = 0.25 A	_	_	1.3	V
Switching time	Rise time	tr	20 µs IB1 OUTPUT INPUT 0 → IB2 C VCC ≈ 200 V	_	_	0.5	μs
	Storage time	t <sub>stg</sub>		_	_	2.0	
	Fall time	t <sub>f</sub>	I <sub>B1</sub> = 0.25 A, I <sub>B2</sub> = −0.5 A DUTY CYCLE ≤ 1%	_	—	0.3	

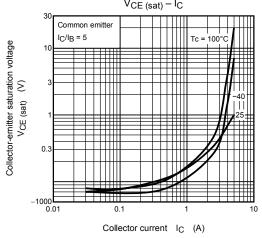
### Marking

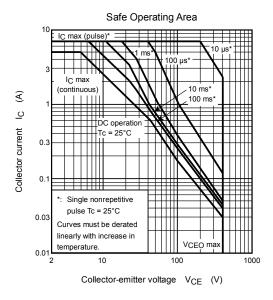


## **TOSHIBA**









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