

TOSHIBA Transistor Silicon NPN Triple Diffused Type (PCT process)

2SC3075

Switching Regulator and High Voltage Switching Applications

Unit: mm

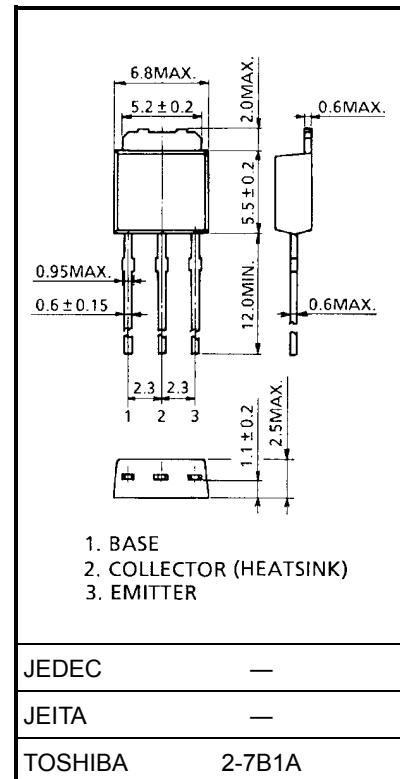
DC-DC Converter Applications

DC-AC Converter Applications

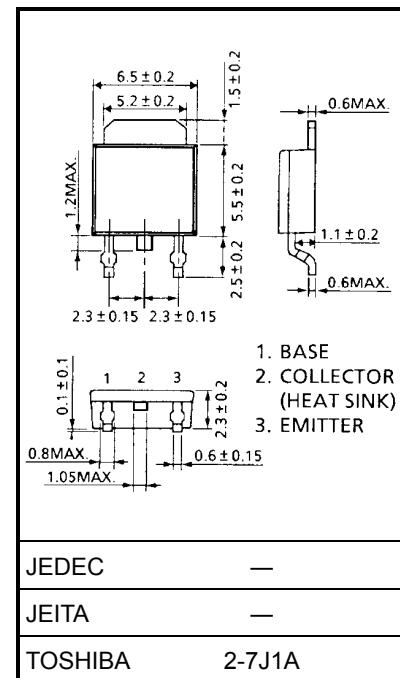
- Excellent switching times: $t_r = 1.0 \mu\text{s}$ (max)
 $t_f = 1.5 \mu\text{s}$ (max), ($I_C = 0.5 \text{ A}$)
- High collector breakdown voltage: $V_{CEO} = 400 \text{ V}$

Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	500	V
Collector-emitter voltage		V_{CEO}	400	V
Emitter-base voltage		V_{EBO}	7	V
Collector current	DC	I_C	0.8	A
	Pulse	I_{CP}	1.5	
Base current		I_B	0.5	A
Collector power dissipation	$T_a = 25^\circ\text{C}$	P_C	1.0	W
	$T_c = 25^\circ\text{C}$		10	
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	-55 to 150	°C

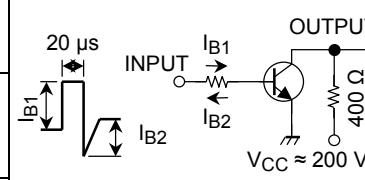


Weight: 0.36 g (typ.)

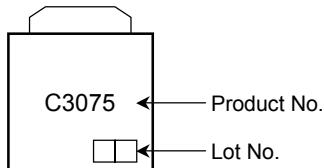


Weight: 0.36 g (typ.)

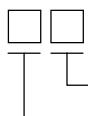
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 400 \text{ V}, I_E = 0$	—	—	100	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 7 \text{ V}, I_C = 0$	—	—	100	μA
Collector-base breakdown voltage	$V_{(BR) CBO}$	$I_C = 1 \text{ mA}, I_E = 0$	500	—	—	V
Collector-emitter breakdown voltage	$V_{(BR) CEO}$	$I_C = 10 \text{ mA}, I_B = 0$	400	—	—	V
DC current gain	h_{FE}	$V_{CE} = 5 \text{ V}, I_C = 0.1 \text{ A}$	20	—	100	
		$V_{CE} = 5 \text{ V}, I_C = 0.5 \text{ A}$	10	—	—	
Collector-emitter saturation voltage	$V_{CE} (\text{sat})$	$I_C = 0.1 \text{ A}, I_B = 0.01 \text{ A}$	—	—	0.5	V
Base-emitter saturation voltage	$V_{BE} (\text{sat})$	$I_C = 0.1 \text{ A}, I_B = 0.01 \text{ A}$	—	—	1.0	V
Switching time	Rise on time	t_r	 $20 \mu\text{s}$ I_{B1} I_{B2} $V_{CC} \approx 200 \text{ V}$ $I_{B1} = -I_{B2} = 0.05 \text{ A}$, DUTY CYCLE $\leq 1\%$	—	—	1.0
	Storage time	t_{stg}		—	—	2.5
	Fall time	t_f		—	—	1.5

Marking

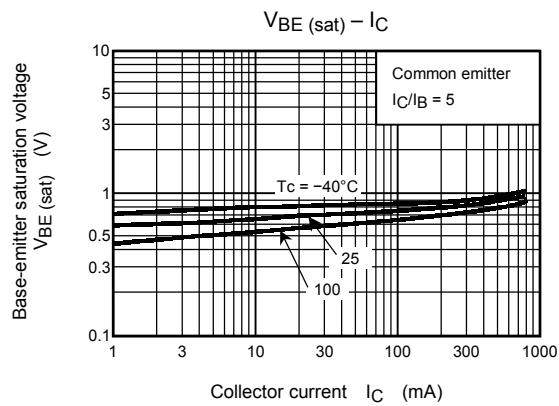
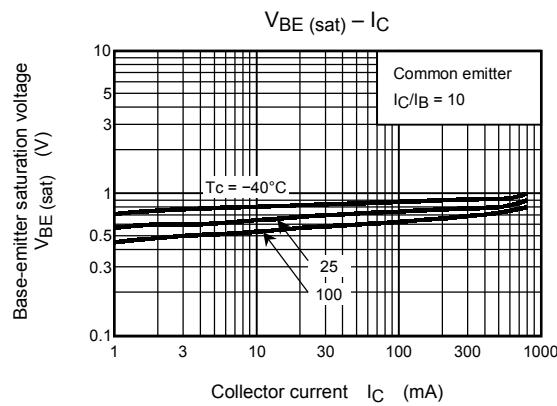
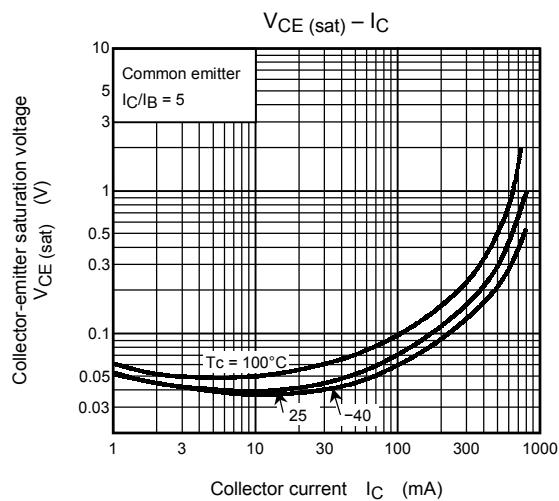
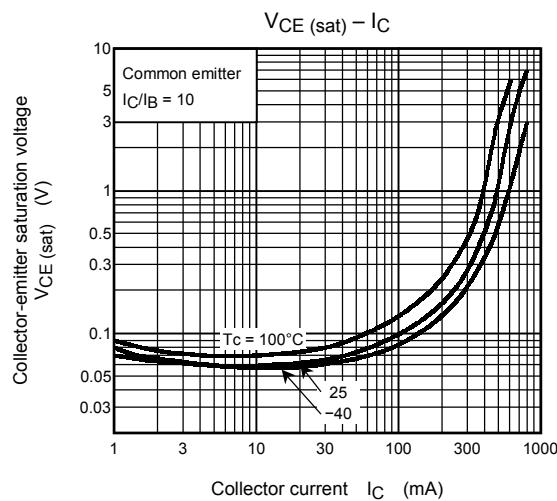
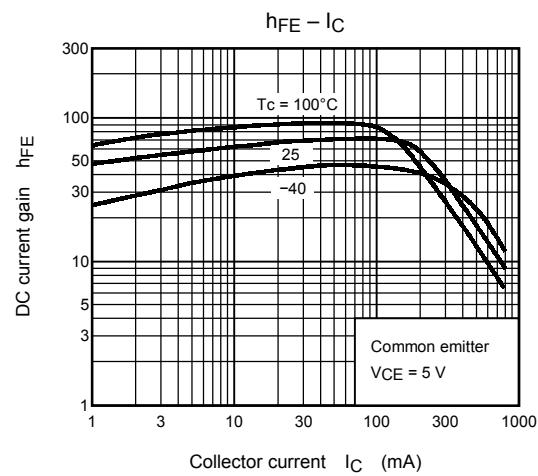
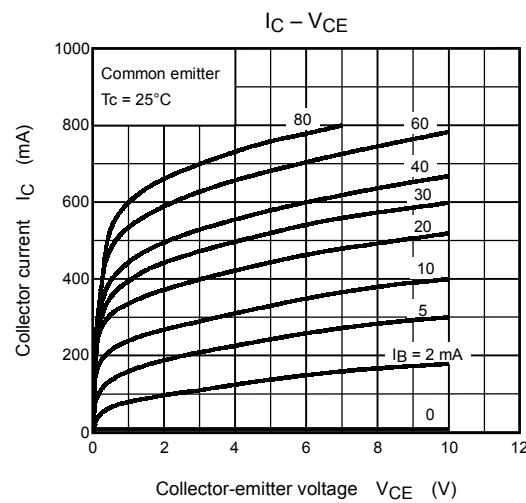


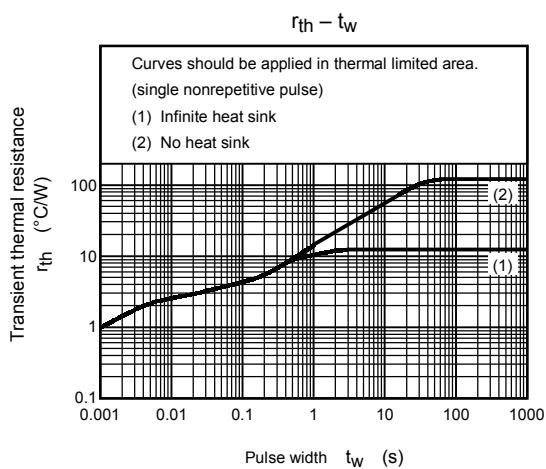
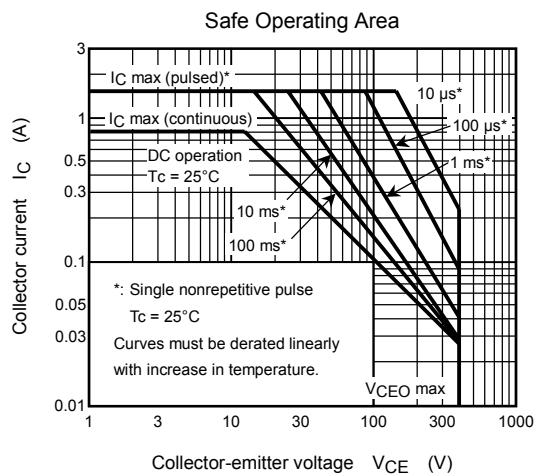
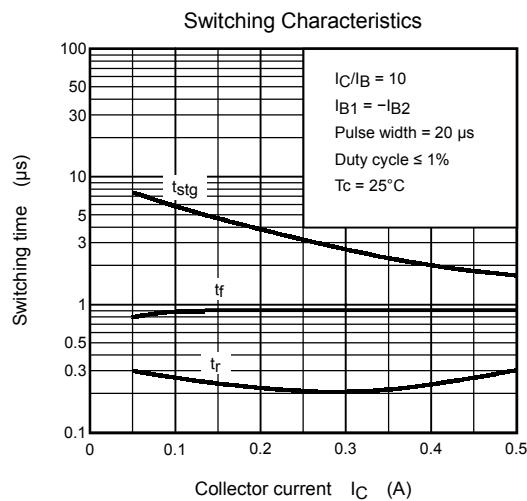
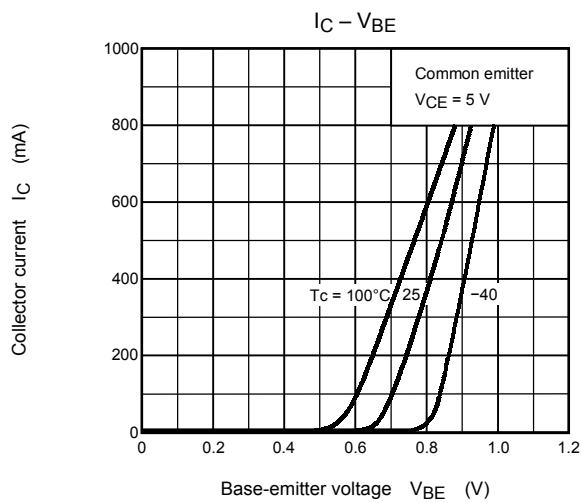
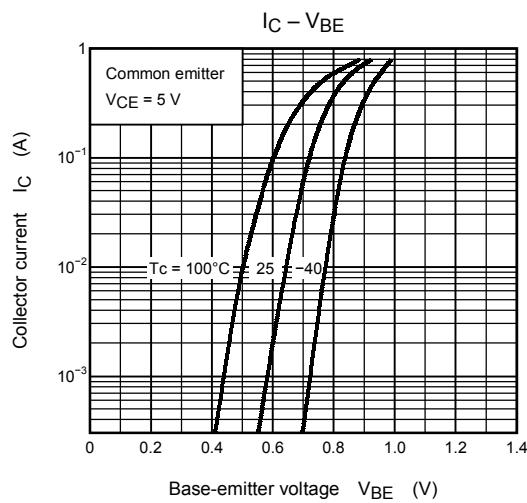
Explanation of Lot No.



Month of manufacture: January to December are denoted by letters A to L respectively.

Year of manufacture: last decimal digit of the year of manufacture





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