

2SC5548A

DC-DC Converter Applications

- ### Maximum Ratings (Ta = 25°C)

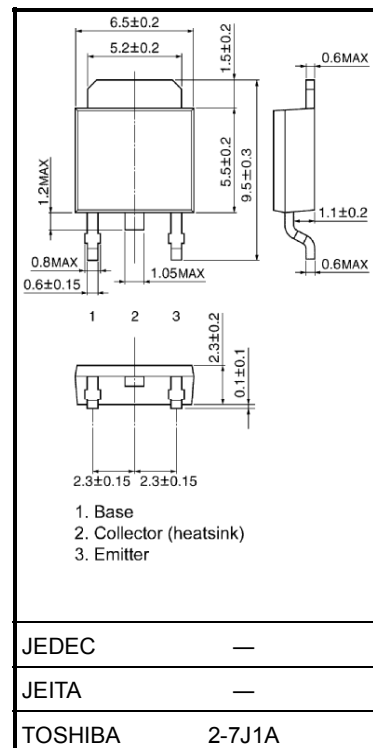
Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	600	V
Collector-emitter voltage		V_{CEO}	400	V
Emitter-base voltage		V_{EBO}	7	V
Collector current	DC	I_C	2	A
	Pulse	I_{CP}	4	
Base current		I_B	0.5	A
Collector power dissipation	$T_a = 25^\circ\text{C}$	P_C	1.0	W
	$T_c = 25^\circ\text{C}$		15	
Junction temperature		T_j	150	$^\circ\text{C}$
Storage temperature range		T_{stg}	-55 to 150	$^\circ\text{C}$

The drawing shows three views of the 2-7B1A transistor package with the following dimensions:

- Top View:**
 - Overall width: 6.8MAX.
 - Width of the base: 5.2 ± 0.2
 - Width of the collector: 2.0MAX.
 - Width of the emitter: 0.6MAX.
- Side View:**
 - Base thickness: 0.95MAX.
 - Collector thickness: 0.6 ± 0.15
 - Emitter thickness: 0.6MAX.
 - Base to collector distance: 12.0MIN.
 - Collector to emitter distance: 5.5 ± 0.2
- Bottom View:**
 - Base to collector distance: 1.1 ± 0.2
 - Collector to emitter distance: 2.5MAX.
- Pin Labels:**
 - 1: BASE
 - 2: COLLECTOR (HEATSINK)
 - 3: EMITTER

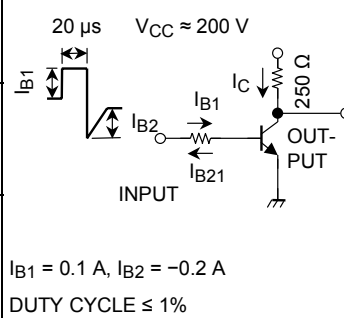
JEDEC	—
JEITA	—
TOSHIBA	2-7B1A

Weight: 0.36 g (typ.)

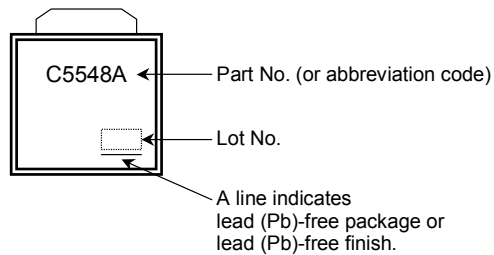


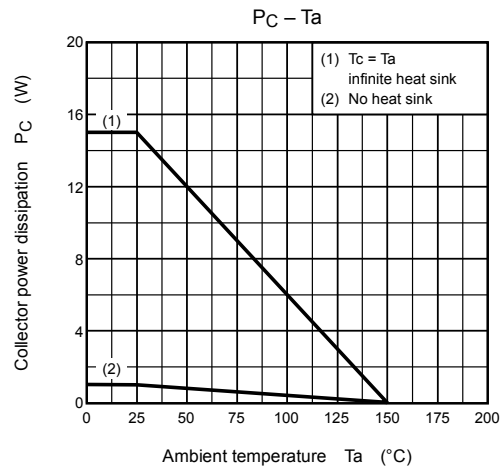
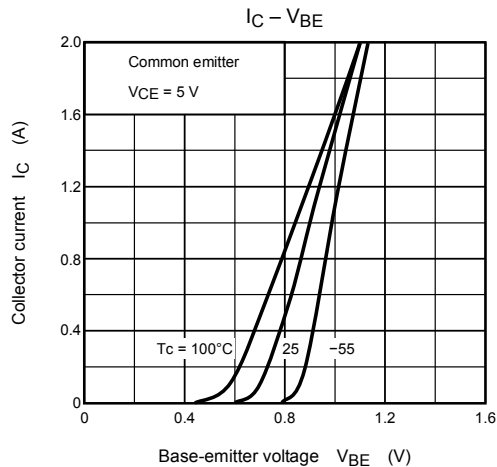
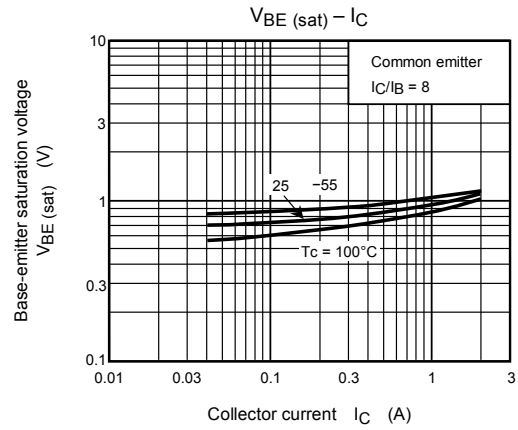
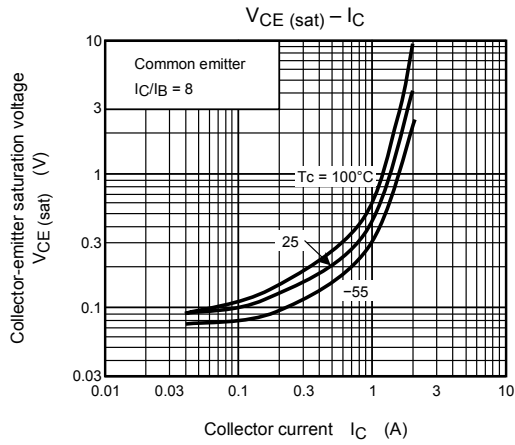
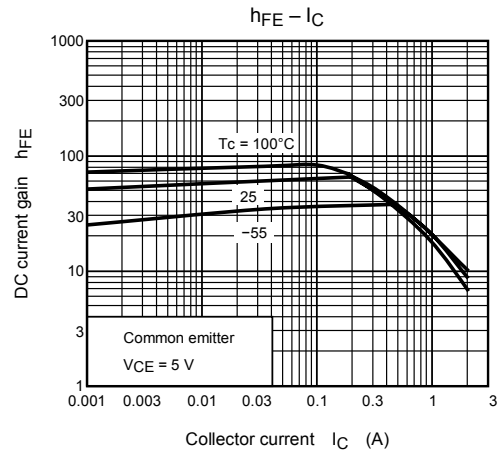
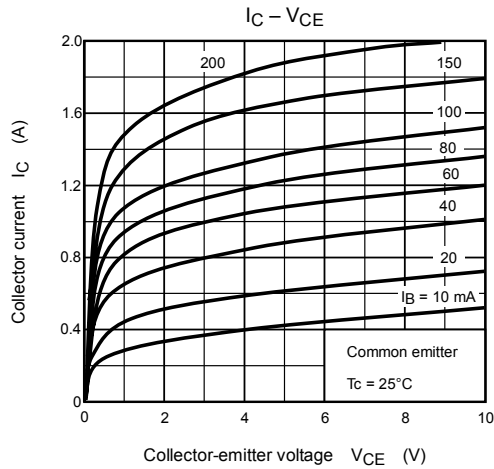
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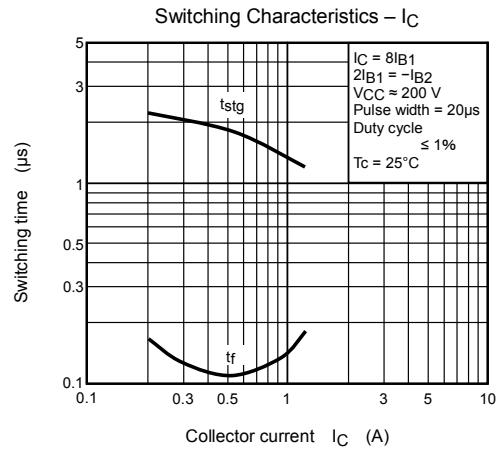
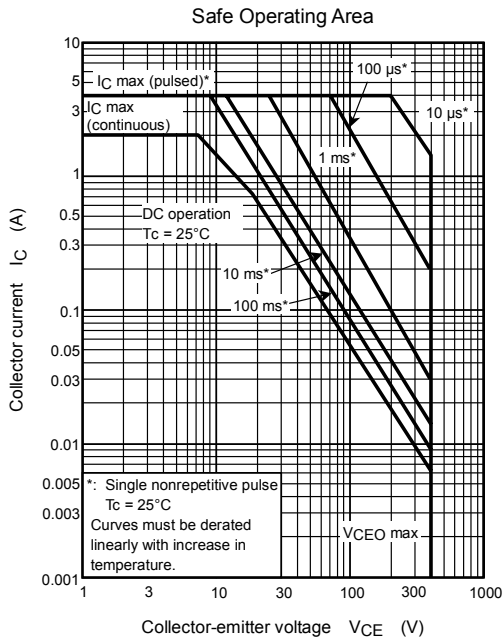
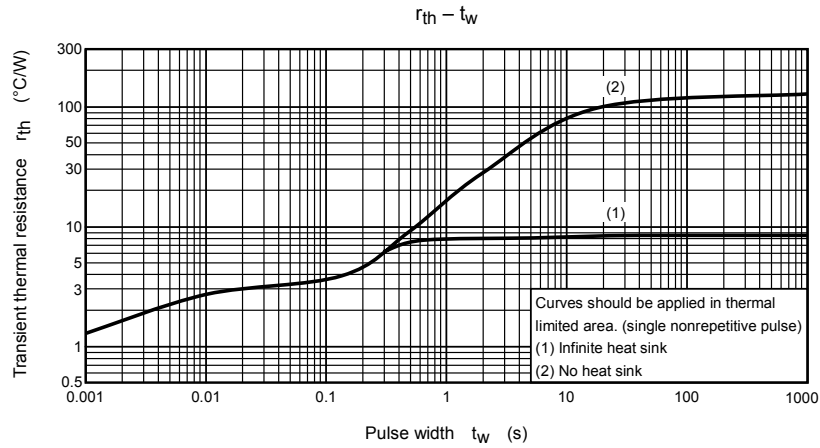
Electrical Characteristics (Ta = 25°C)

Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current		I_{CBO}	$V_{CB} = 480 \text{ V}, I_E = 0$	—	—	20	μA
Emitter cut-off current		I_{EBO}	$V_{EB} = 7 \text{ V}, I_C = 0$	—	—	10	μA
Collector-base breakdown voltage		$V_{(BR) CBO}$	$I_C = 1 \text{ mA}, I_E = 0$	600	—	—	V
Collector-emitter breakdown voltage		$V_{(BR) CEO}$	$I_C = 10 \text{ mA}, I_B = 0$	400	—	—	V
DC current gain		$h_{FE (1)}$	$V_{CE} = 5 \text{ V}, I_C = 1 \text{ mA}$	20	—	—	
		$h_{FE (2)}$	$V_{CE} = 5 \text{ V}, I_C = 0.2 \text{ A}$	40	—	100	
Collector emitter saturation voltage		$V_{CE (sat)}$	$I_C = 0.8 \text{ A}, I_B = 0.1 \text{ A}$	—	—	1.0	V
Base-emitter saturation voltage		$V_{BE (sat)}$	$I_C = 0.8 \text{ A}, I_B = 0.1 \text{ A}$	—	—	1.3	V
Switching time	Rise time	t_r	 $I_{B1} = 0.1 \text{ A}, I_{B2} = -0.2 \text{ A}$ DUTY CYCLE $\leq 1\%$	—	—	0.5	μs
	Storage time	t_{stg}		—	—	3.0	
	Fall time	t_f		—	—	0.3	

Marking







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