

TOSHIBA Transistor Silicon NPN Triple Diffused Type

2SC5548A

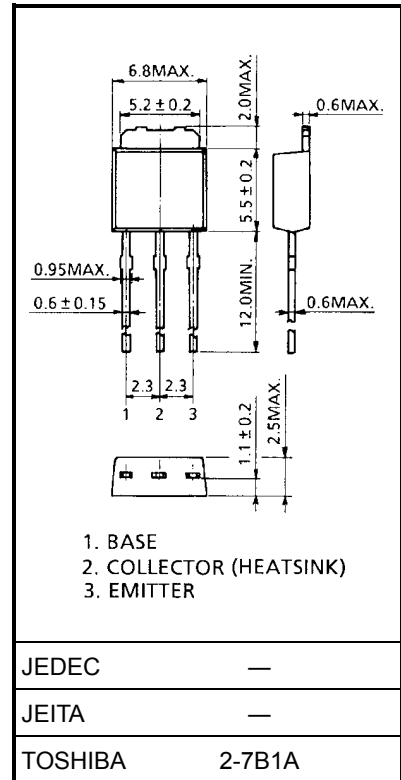
High Voltage Switching Applications
 Switching Regulator Applications
 DC-DC Converter Applications

- High speed switching: $t_r = 0.5 \mu s$ (max), $t_f = 0.3 \mu s$ (max) ($I_C = 0.8 A$)
- High collector breakdown voltage: $V_{CEO} = 400 V$
- High DC current gain: $h_{FE} = 40$ (min) ($I_C = 0.2 A$)

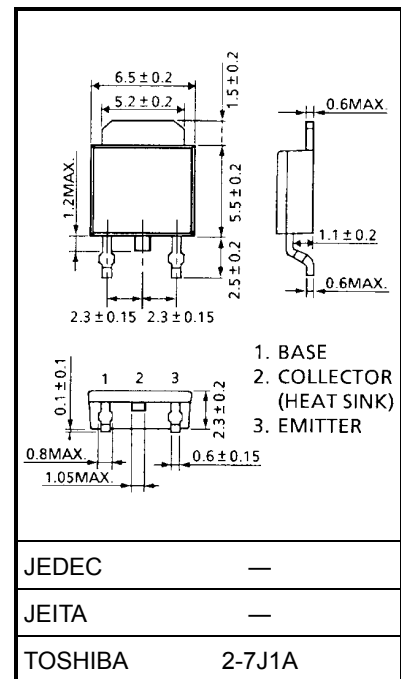
Maximum Ratings (Ta = 25°C)

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	Ta = 25°C	P_C	1.0	W
	Tc = 25°C		15	
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	-55 to 150	°C

Unit: mm



Weight: 0.36 g (typ.)

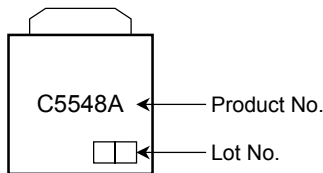


Weight: 0.36 g (typ.)

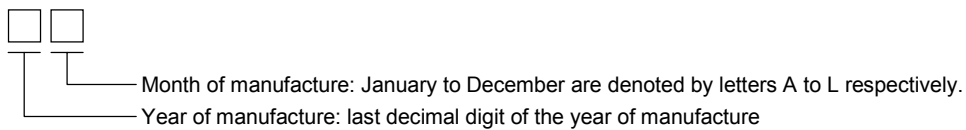
Electrical Characteristics (Ta = 25°C)

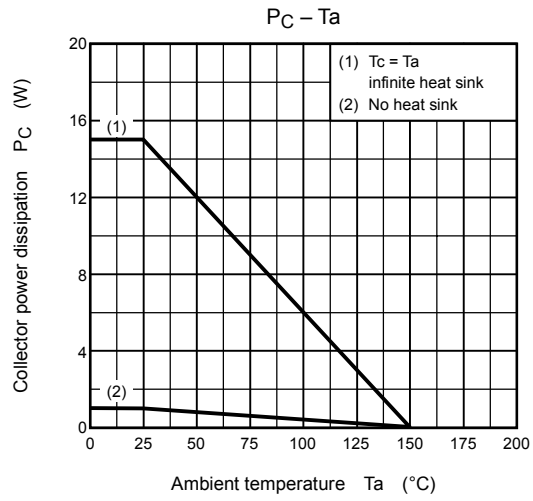
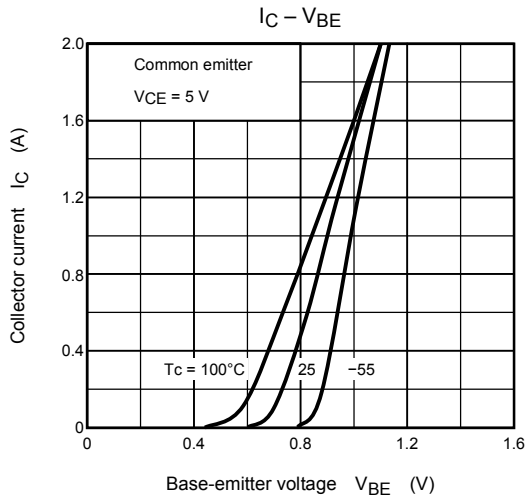
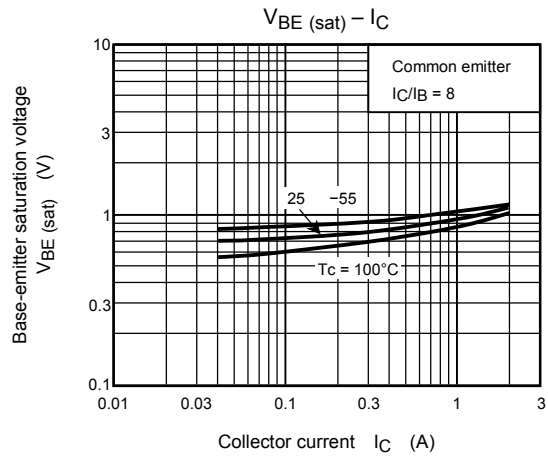
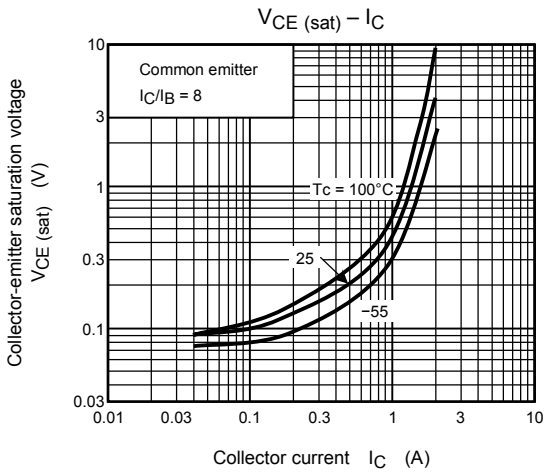
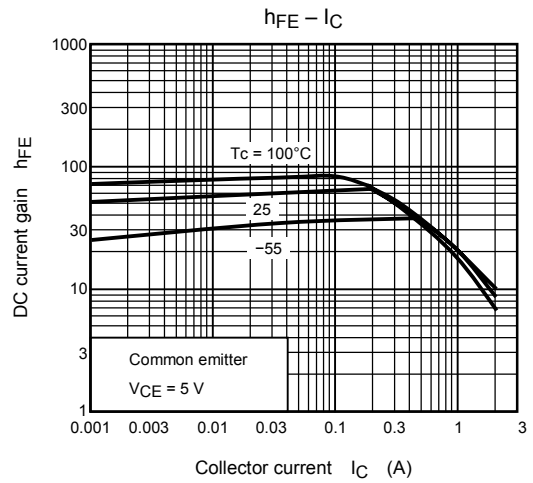
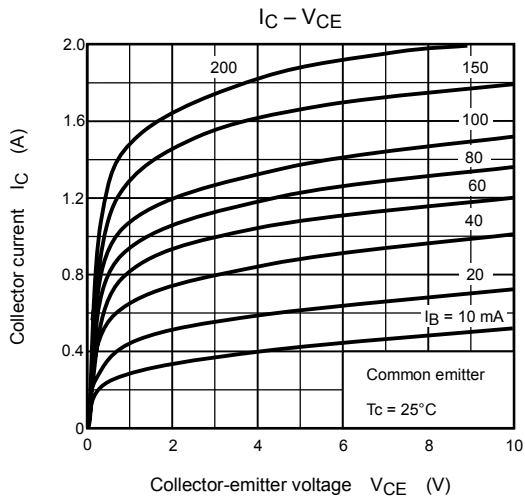
Characteristics		Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current		I_{CBO}	$V_{CB} = 480\text{ V}, I_E = 0$	—	—	20	μA
Emitter cut-off current		I_{EBO}	$V_{EB} = 7\text{ V}, I_C = 0$	—	—	10	μA
Collector-base breakdown voltage		$V_{(BR)CBO}$	$I_C = 1\text{ mA}, I_E = 0$	600	—	—	V
Collector-emitter 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	<p>20 μs $V_{CC} \approx 200\text{ V}$ I_{B1} I_{B2} I_{B21} I_C INPUT OUTPUT 250 Ω</p>	—	—	0.5	μs
	Storage time	t_{stg}		—	—	3.0	
	Fall time	t_f		$I_{B1} = 0.1\text{ A}, I_{B2} = -0.2\text{ A}$ DUTY CYCLE $\leq 1\%$	—	—	

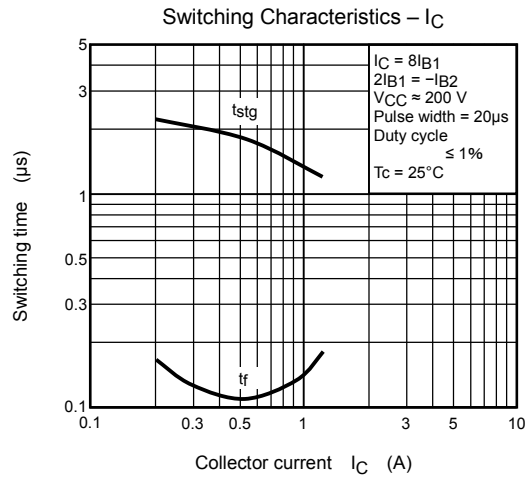
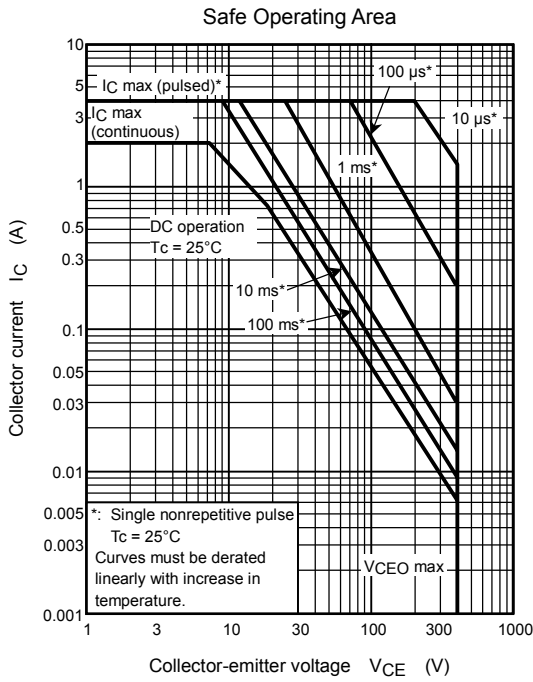
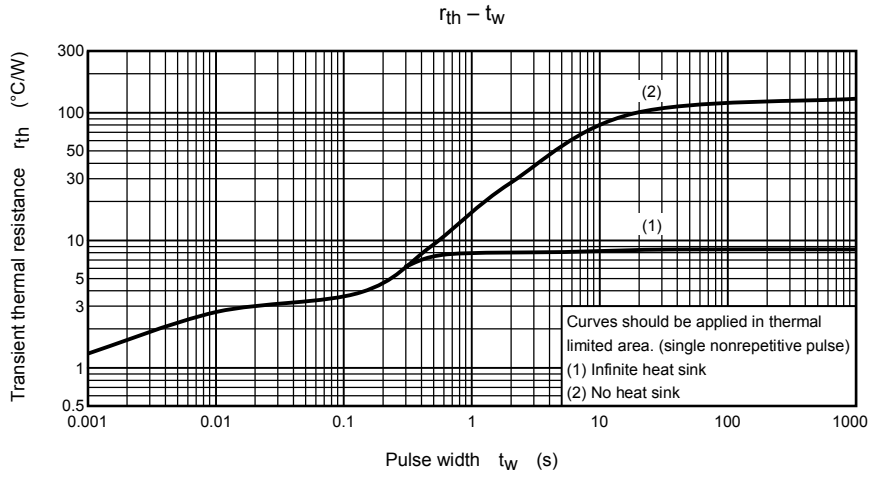
Marking



Explanation of Lot No.







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