

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SC3307

HIGH SPEED AND HIGH VOLTAGE SWITCHING APPLICATIONS.
 SWITCHING REGULATOR APPLICATIONS.
 HIGH SPEED DC-DC CONVERTER APPLICATIONS.

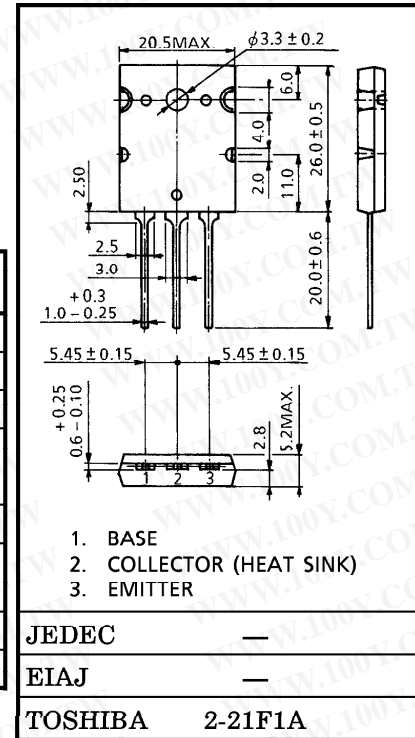
INDUSTRIAL APPLICATIONS

Unit in mm

- Excellent Switching Times
 : $t_r = 1.0\mu s$ (Max.), $t_f = 1.0\mu s$ (Max.) ($I_C = 5A$)
- High Collector Breakdown Voltage : $V_{CEO} = 800V$

MAXIMUM RATINGS ($T_a = 25^\circ C$)

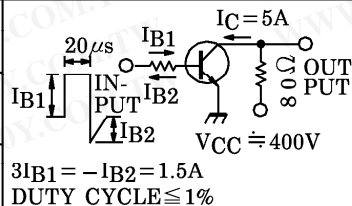
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	900	V
Collector-Emitter Voltage	V_{CEO}	800	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	DC	I_C	10
	Pulse	I_{CP}	15
Base Current	I_B	3	A
Collector Power Dissipation ($T_c = 25^\circ C$)	P_C	150	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

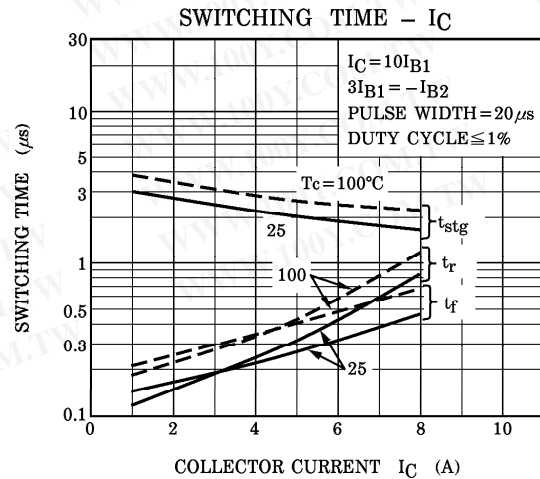
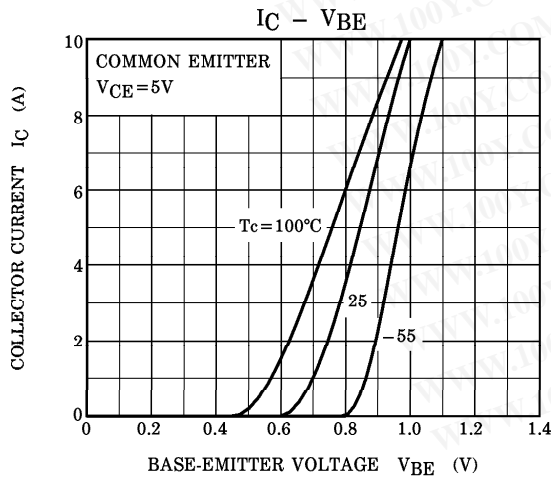
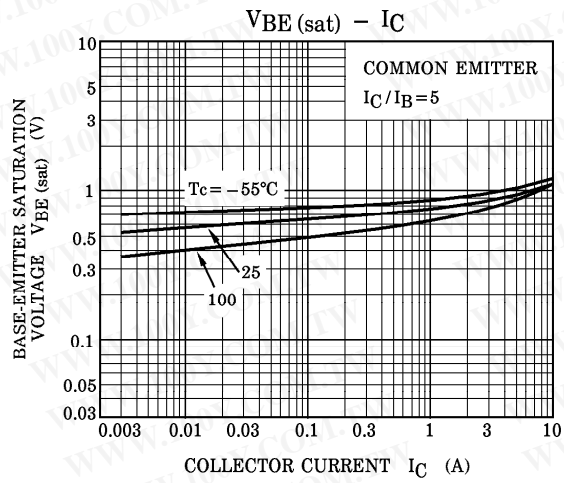
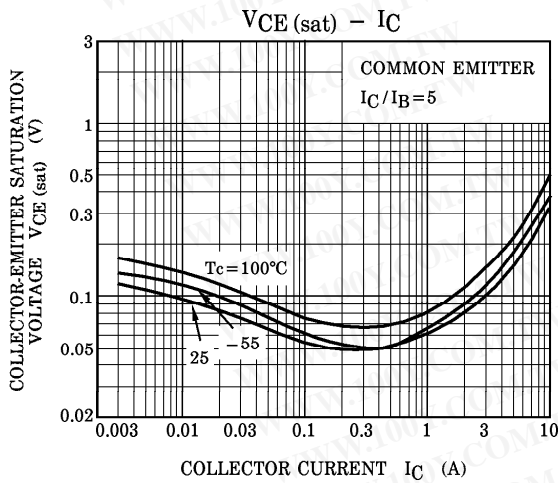
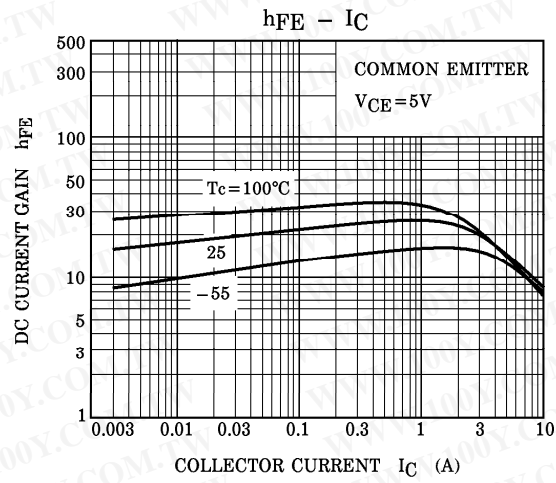
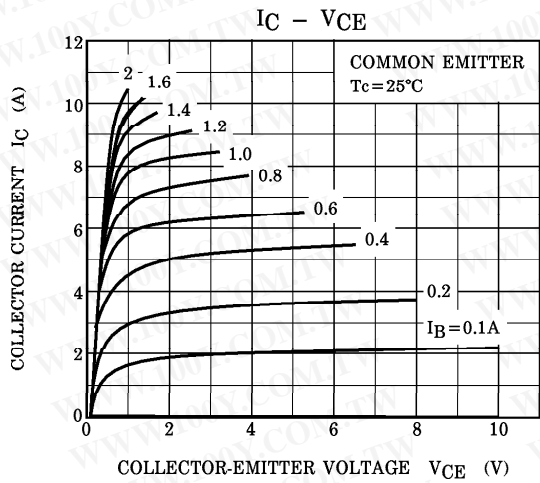
Weight : 9.8g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 800V, I_E = 0$	—	—	100	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 7V, I_C = 0$	—	—	1	mA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1mA, I_E = 0$	900	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	800	—	—	V
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 5V, I_C = 10mA$	10	—	—	
	$h_{FE(2)}$	$V_{CE} = 5V, I_C = 5A$	10	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 5A, I_B = 1A$	—	—	1.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 5A, I_B = 1A$	—	—	1.5	V
Switching Time	Rise Time	t_r	—	—	1.0	μs
	Storage Time	t_{stg}	—	—	3.0	
	Fall Time	t_f	—	—	1.0	



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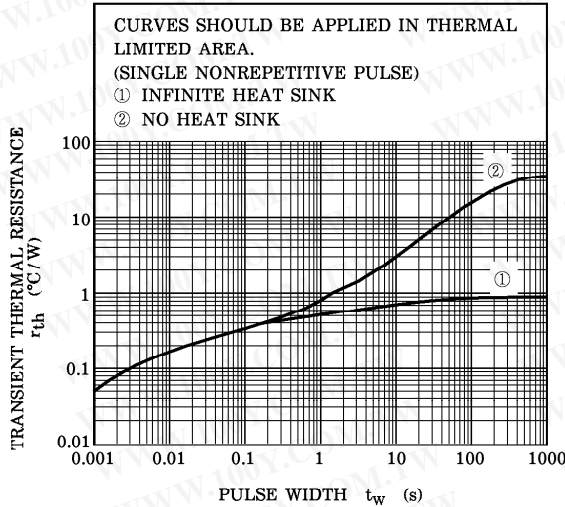
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$r_{th} - t_w$



SAFE OPERATING AREA

