

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

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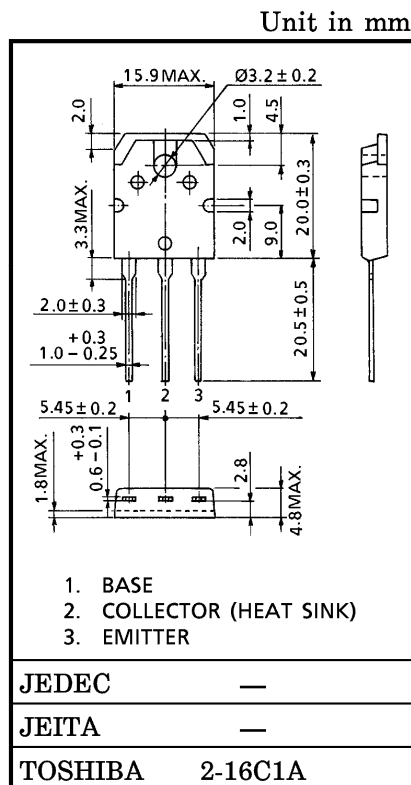
SWITCHING REGULATOR AND HIGH VOLTAGE SWITCHING APPLICATIONS

HIGH SPEED DC-DC CONVERTER APPLICATIONS

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

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

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	4
	Pulse	I_{CP}	8
Base Current	DC	I_B	2
	Pulse	I_{BP}	5
Collector Power Dissipation ($T_c = 25^\circ C$)	P_C	80	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$

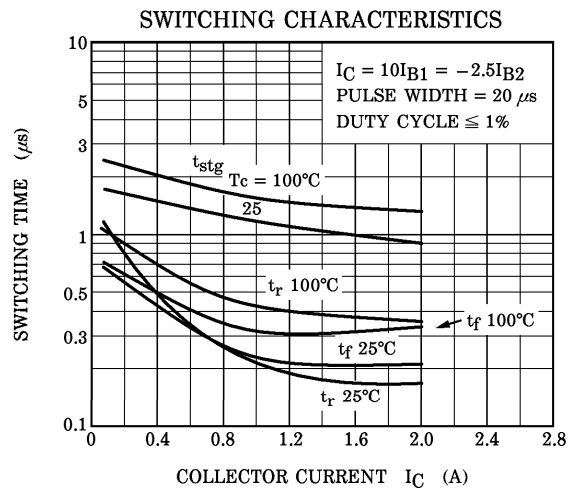
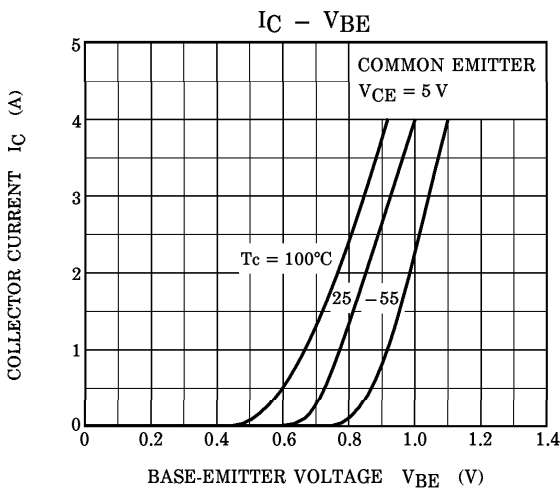
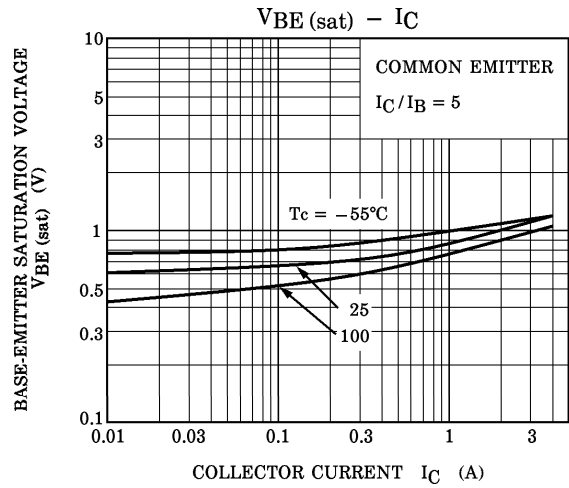
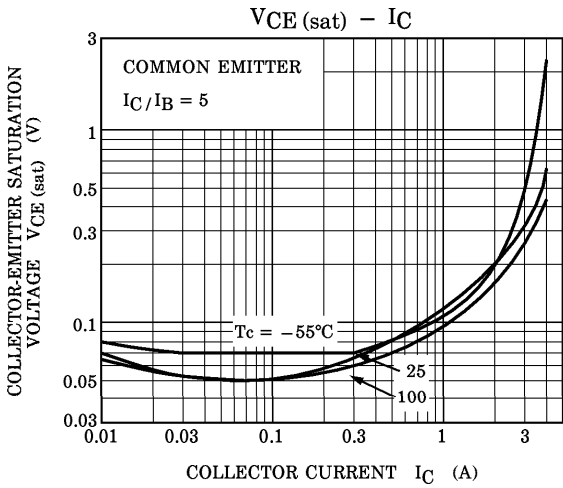
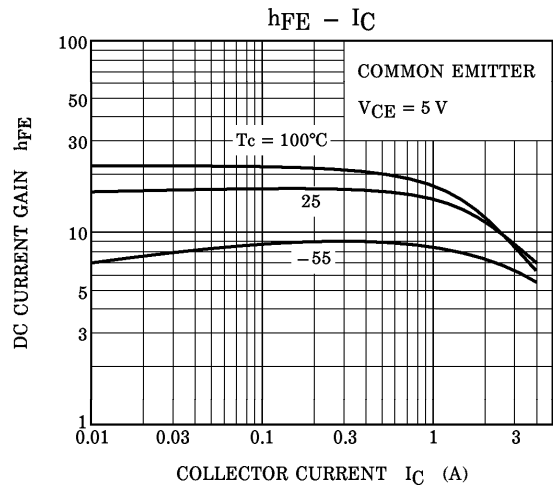
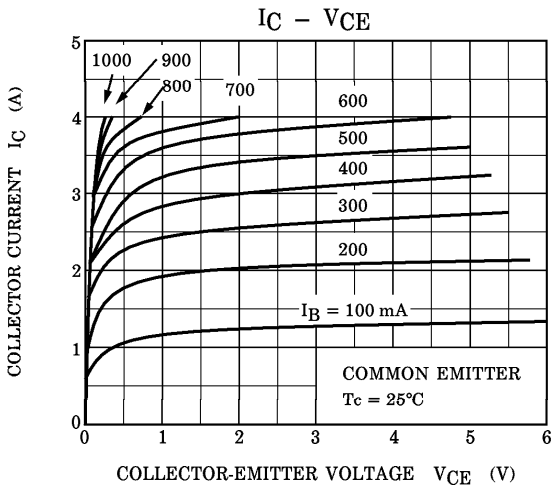


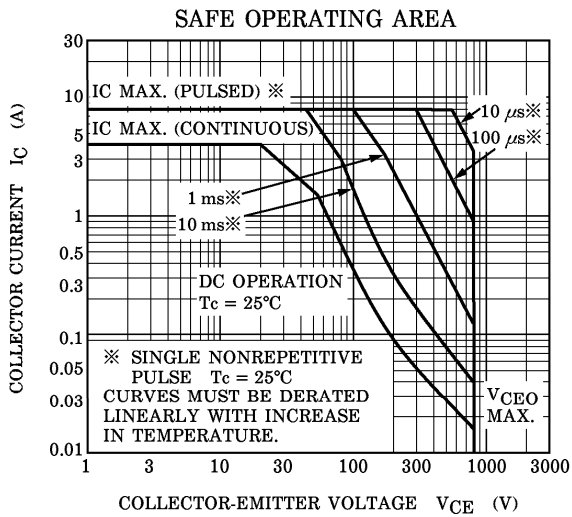
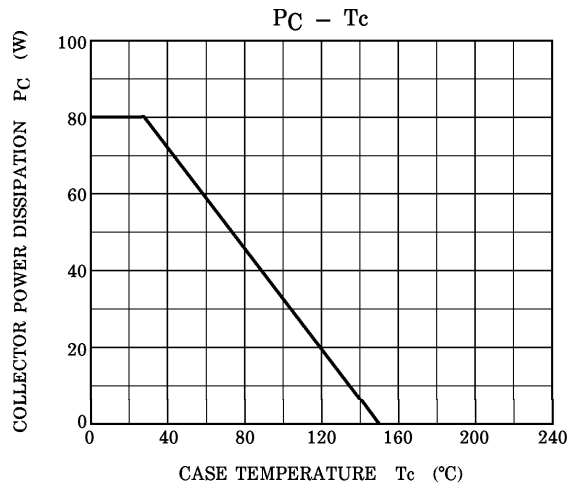
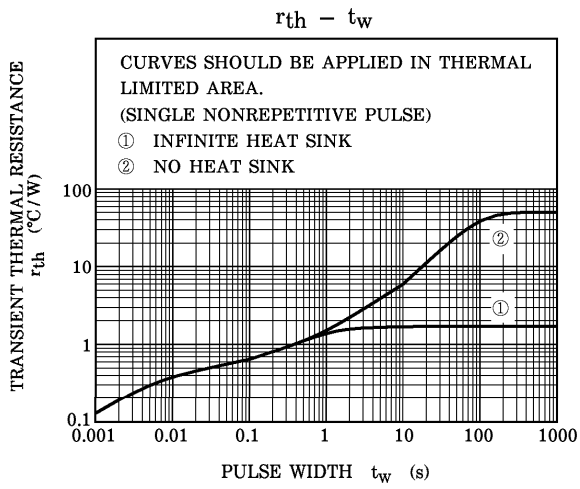
Weight : 4.7 g (Typ.)

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 800 V, I_E = 0$	—	—	100	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 7 V, I_C = 0$	—	—	1	mA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1 mA, I_E = 0$	900	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10 mA, I_B = 0$	800	—	—	V
DC Current Gain	h_{FE}	$V_{CE} = 5 V, I_C = 1 A$	10	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 2 A, I_B = 0.4 A$	—	—	1.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 2 A, I_B = 0.4 A$	—	—	1.5	V
Switching Time	Rise Time	t_r	—	—	1.0	μs
	Storage Time	t_{stg}	—	—	2.5	
	Fall Time	t_f	—	—	1.0	

$I_{B1} = -I_{B2} = -0.4 A$
DUTY CYCLE $\leq 1\%$





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