

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SC5368

SWITCHING REGULATOR APPLICATIONS

HIGH VOLTAGE SWITCHING APPLICATIONS

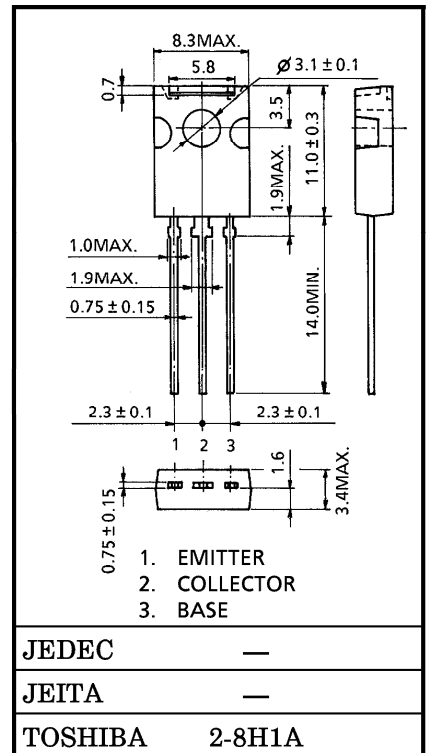
DC-DC CONVERTER APPLICATIONS

- High Speed : $t_r = 0.5 \mu s$ (Max.), $t_f = 0.3 \mu s$ (Max.)
($I_C = 0.8A$)
- High Collector Breakdown Voltage : $V_{CEO} = 450V$
- High DC Current Gain : $h_{FE} = 20$ (Min.) ($I_C = 0.3A$)

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CB0}	650	V
Collector-Emitter Voltage		V_{CEO}	450	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	$T_a = 25^\circ C$	P_C	1.5	W
	$T_c = 25^\circ C$		10	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55~150	$^\circ C$

Unit in mm



JEDEC —

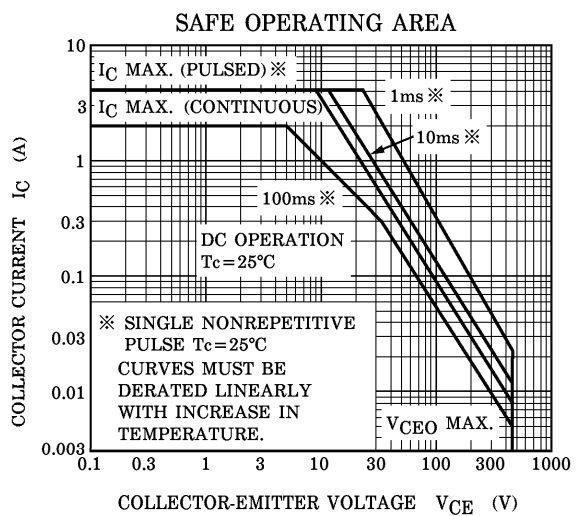
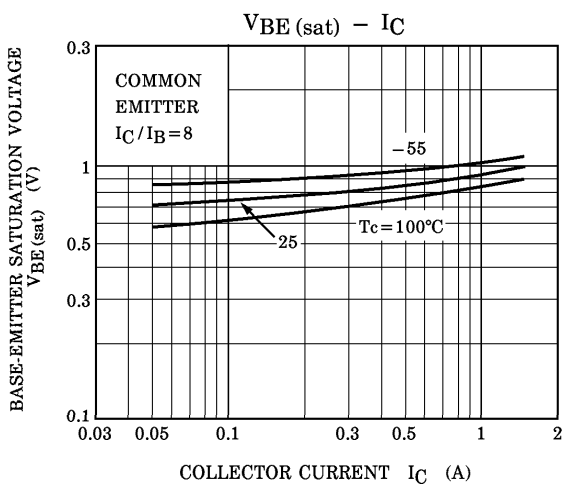
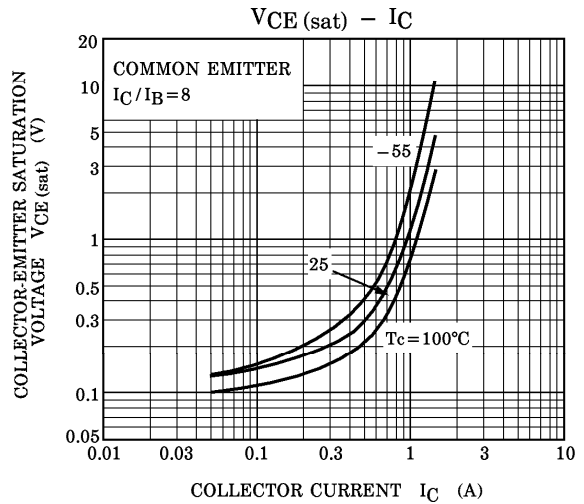
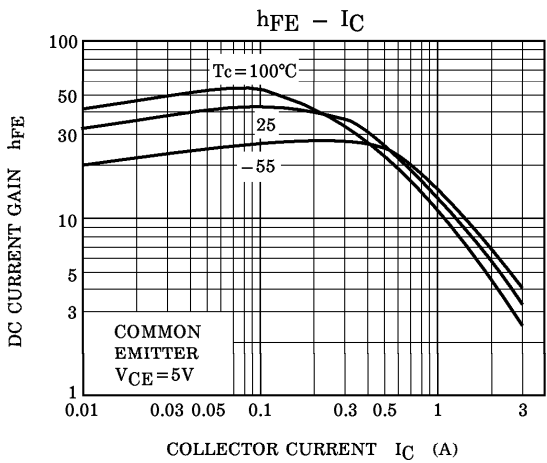
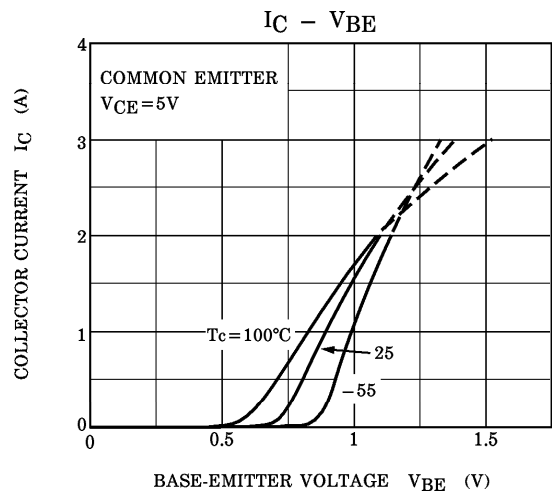
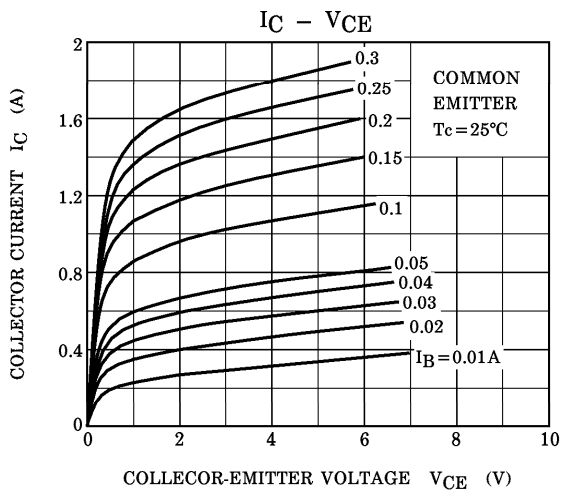
JEITA —

TOSHIBA 2-8H1A

Weight : 0.82 g(Typ.)

ELECTRICAL CHARACTERISTICS (T_c = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I _{CBO}	V _{CB} = 520V, I _E = 0	—	—	20	μA
Emitter Cut-off Current		I _{EBO}	V _{EB} = 7V, I _C = 0	—	—	10	μA
Collector-Base Breakdown Voltage		V _{(BR) CBO}	I _C = 1mA, I _E = 0	650	—	—	V
Collector-Emitter Breakdown Voltage		V _{(BR) CEO}	I _E = 10mA, I _B = 0	450	—	—	V
DC Current Gain		h _{FE} (1)	V _{CE} = 5V, I _C = 1mA	13	—	—	—
		h _{FE} (2)	V _{CE} = 5V, I _C = 0.2A	20	—	65	
Collector-Emitter Saturation Voltage		V _{CE (sat)}	I _C = 0.8A, I _B = 0.1A	—	—	1.0	V
Base-Emitter Saturation Voltage		V _{BE (sat)}	I _C = 0.8A, I _B = 0.1A	—	—	1.3	V
Switching Time	Rise Time	t _r	<p>20 μs V_{CC} = 200V I_{B1} I_{B2} I_C 250Ω INPUT OUTPUT</p>	—	—	0.5	μs
	Storage Time	t _{stg}		—	—	2.0	
	Fall Time	t _f		I _{B1} = 0.1A, I _{B2} = -0.2A DUTY CYCLE ≤ 1%	—	—	



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