

TOSHIBA TRANSISTOR SILICON PNP TRIPLE DIFFUSED TYPE

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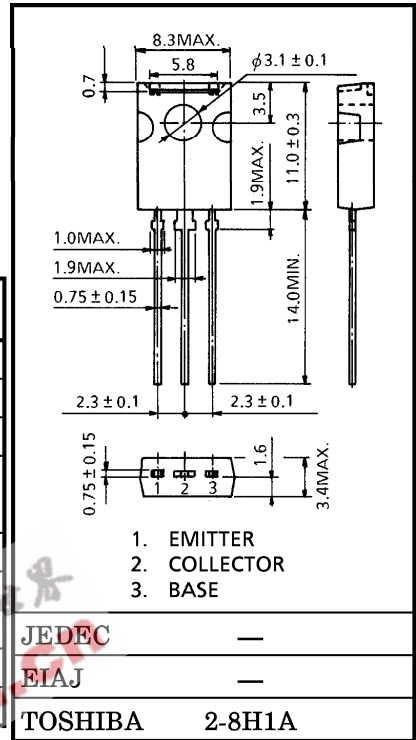
HIGH VOLTAGE SWITCHING APPLICATIONS.

Unit in mm

- High Voltage : $V_{CEO} = -400V$
- Low Saturation Voltage : $V_{CE(sat)} = -1V$ (Max.)
($I_C = -100mA, I_B = -10mA$)
- Collector Metal (Fin) is Fully Covered with Mold Resin

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	-400	V
Collector-Emitter Voltage		V_{CEO}	-400	V
Emitter-Base Voltage		V_{EBO}	-7	V
Collector Current	DC	I_C	-0.5	A
	Pulse	I_{CP}	-1	
Base Current		I_B	-0.25	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	$^\circ C$



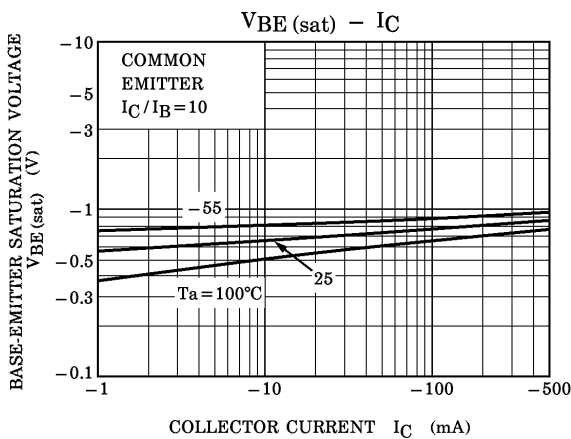
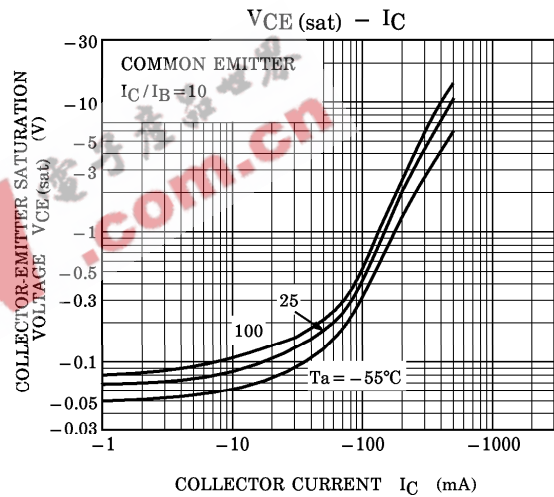
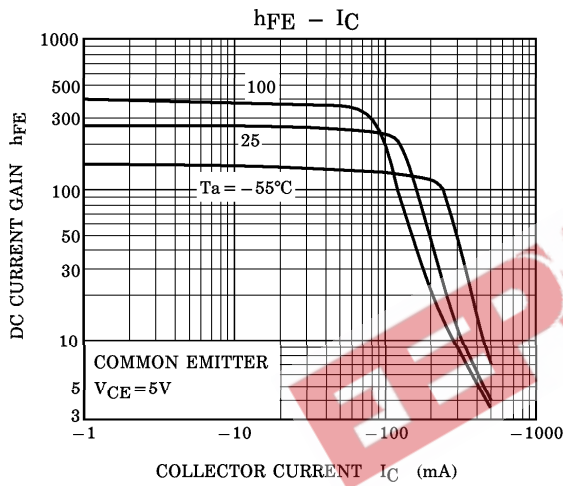
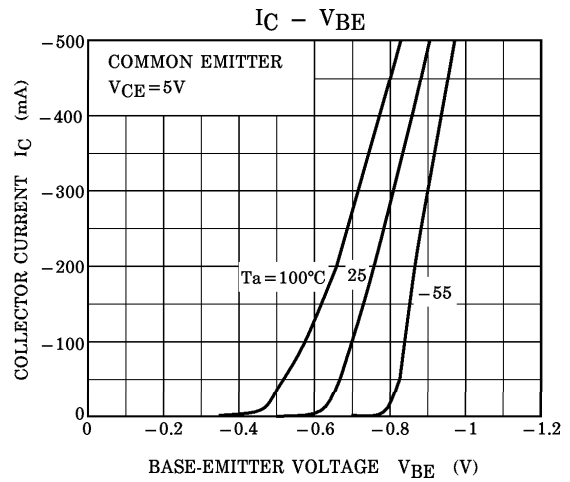
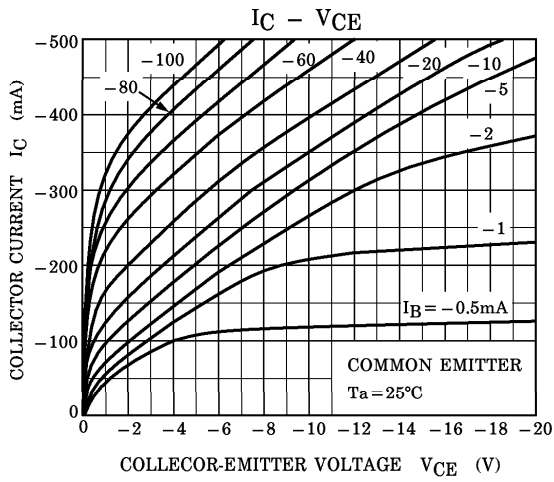
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

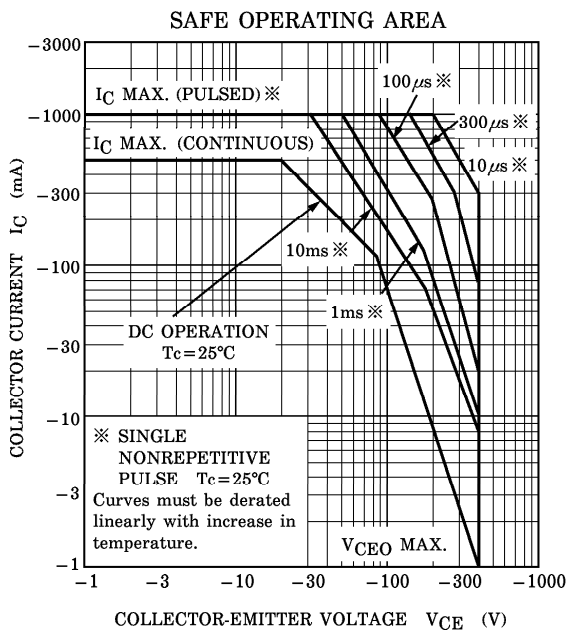
Weight : 0.82g

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB} = -400V, I_E = 0$	—	—	-10	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB} = -7V, I_C = 0$	—	—	-1	μA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-400	—	—	V
DC Current Gain	$h_{FE(1)}$		$V_{CE} = -5V, I_C = -20mA$	140	—	450	
	$h_{FE(2)}$		$V_{CE} = -5V, I_C = -100mA$	140	—	400	
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$	—	-0.4	-1.0	V
	Base-Emitter	$V_{BE(sat)}$	$I_C = -100mA, I_B = -10mA$	—	-0.76	-0.9	
Transition Frequency		f_T	$V_{CE} = -5V, I_C = -50mA$	—	35	—	MHz
Collector Output Capacitance		C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	18	—	pF
Switching Time	Turn-on Time	t_{on}		—	0.2	—	μs
	Storage Time	t_{stg}		—	2.3	—	
	Fall Time	t_f		$I_{B1} = 10mA, I_{B2} = 20mA,$ DUTY CYCLE $\leq 1\%$	—	0.2	

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