TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SC5460

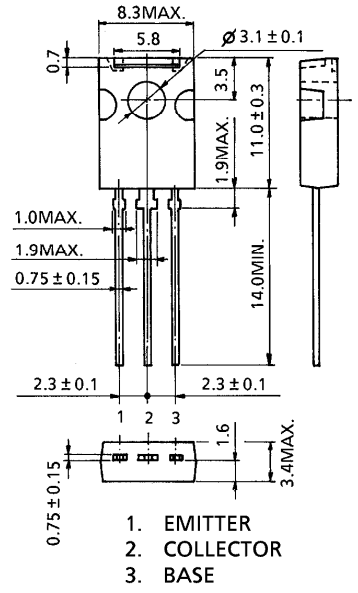
DYNAMIC FOCUS APPLICATIONS

HIGH VOLTAGE SWITCHING APPLICATIONS

HIGH VOLTAGE AMPLIFIER APPLICATIONS

- High Voltage : V_{CEO} = 800 V

Unit in mm



JEDEC	—
JEITA	—
TOSHIBA	2-8H1A

Weight : 0.82 g (Typ.)

MAXIMUM RATINGS (Tc = 25°C)

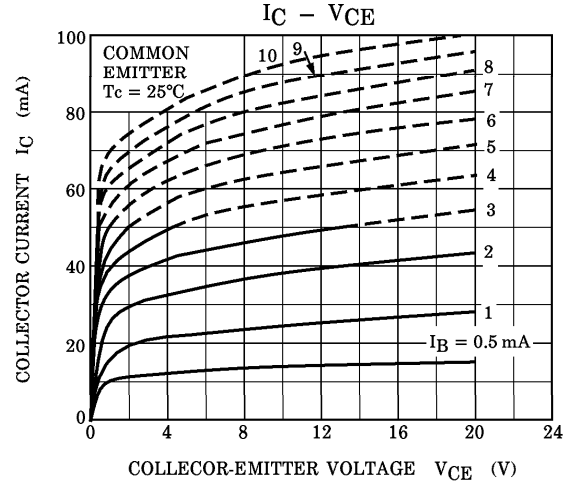
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	800	V
Collector-Emitter Voltage		V_{CEO}	800	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current		I_C	50	mA
Base Current		I_B	25	mA
Collector Power Dissipation	Ta = 25°C	P_C	1.5	W
	Tc = 25°C		10	
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	−55~150	°C

ELECTRICAL CHARACTERISTICS (Tc = 25°C)

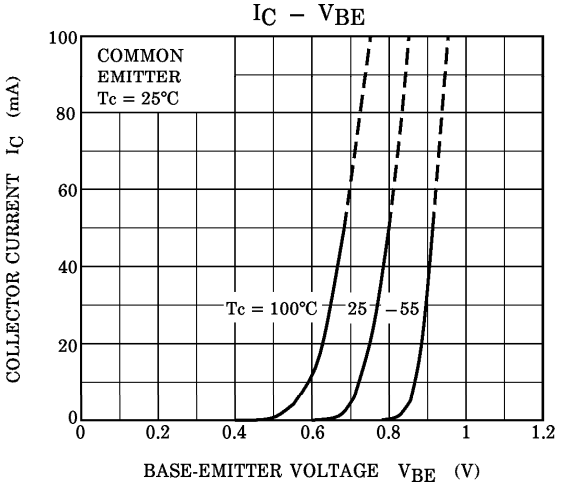
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = 640 V, I_E = 0	—	—	1.0	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5 V, I_C = 0	—	—	10	μA
DC Current Gain	h_{FE}	V_{CE} = 5 V, I_C = 7 mA	15	—	—	
Collector-Emitter Saturation Voltage	$V_{CE\ (sat)}$	I_C = 20 mA, I_B = 4 mA	—	—	1.0	V
Base-Emitter Saturation Voltage	$V_{BE\ (sat)}$	I_C = 20 mA, I_B = 4 mA	—	—	1.5	V
Transition Frequency	f_T	V_{CE} = 10 V, I_C = 3 mA	—	5.5	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = 100 V, f = 1 MHz	—	2.2	—	pF

(Note) : When an external heat sink is used for the device, insulate using, for example, silicone rubber. When an external heat sink is not used, Toshiba recommends that the plastic part should be at least 2mm away from its surroundings.

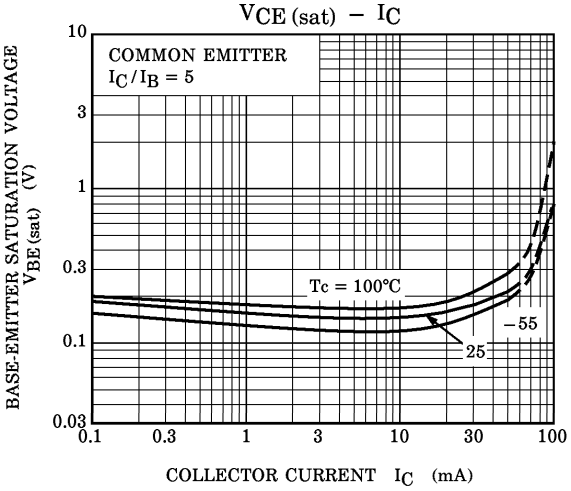
$I_C - V_{CE}$



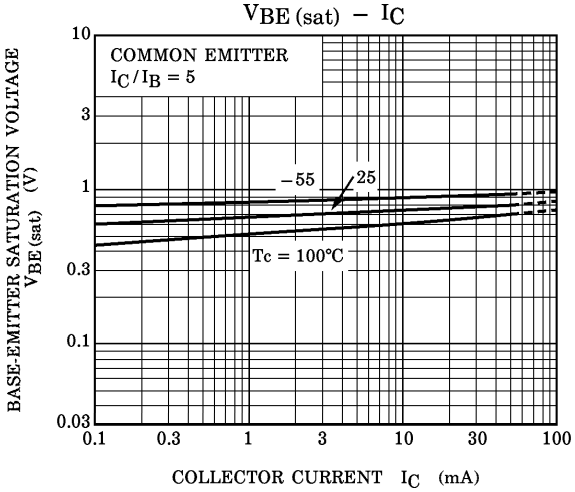
$I_C - V_{BE}$



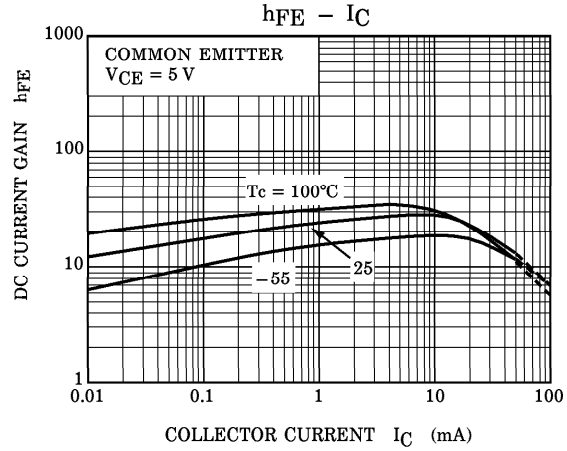
$V_{CE\,(sat)} - I_C$



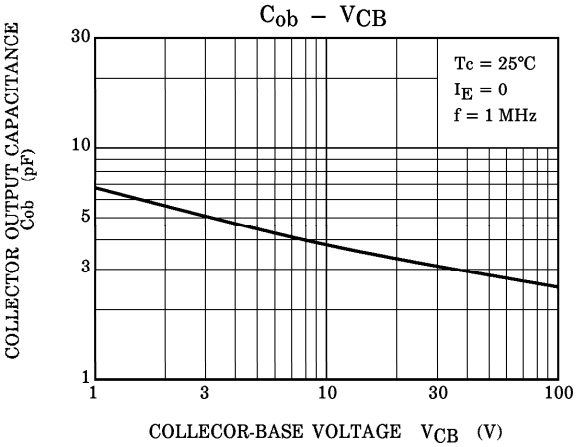
$V_{BE\,(sat)} - I_C$



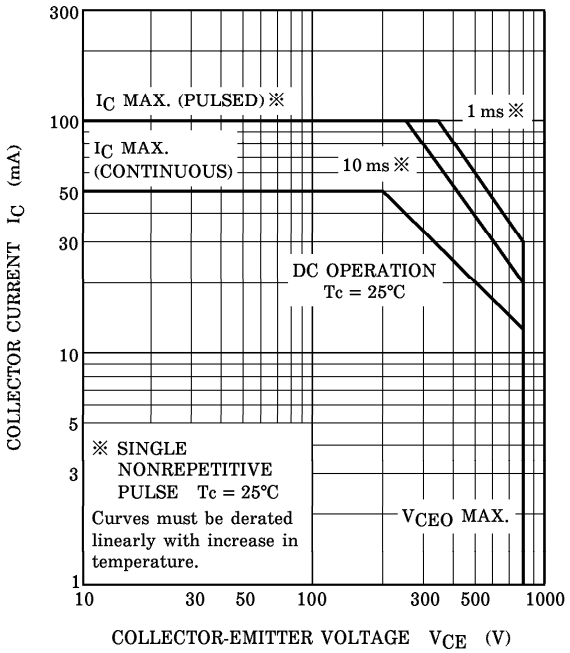
$h_{FE} - I_C$



$C_{ob} - V_{CB}$



SAFE OPERATING AREA



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