

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED PLANAR TYPE

# 2SC4686, 2SC4686A

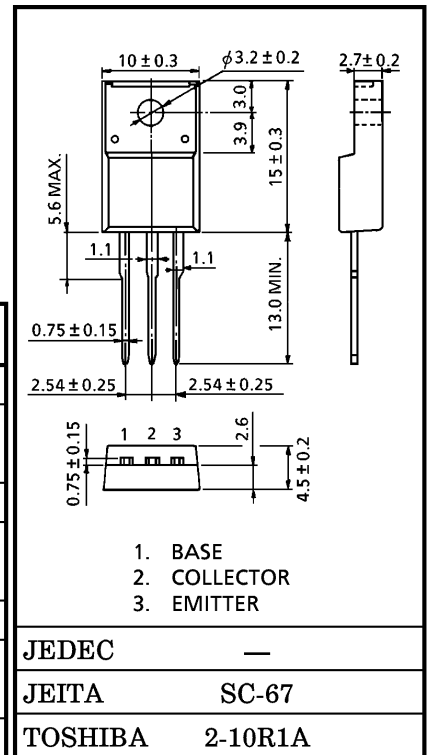
TV DYNAMIC FOCUS APPLICATIONS  
 HIGH VOLTAGE SWITCHING APPLICATIONS  
 HIGH VOLTAGE AMPLIFIER APPLICATIONS

Unit in mm

- High Voltage :  $V_{CEO} = 1200V$  (Max.)
- Small Collector Output Capacitance :  $C_{ob} = 2.2pF$  (Typ.) ( $V_{CB} = 100V$ )

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

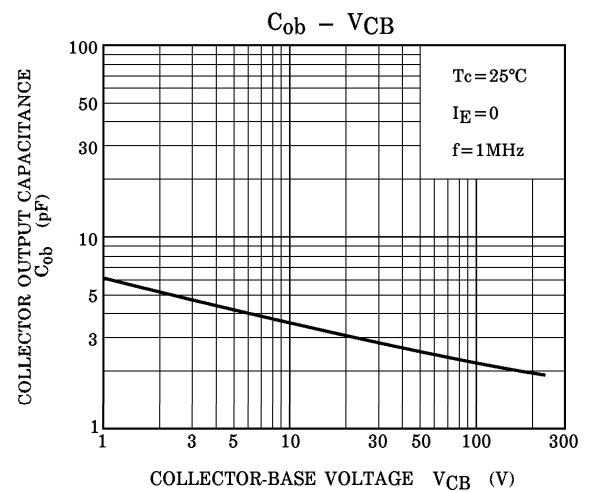
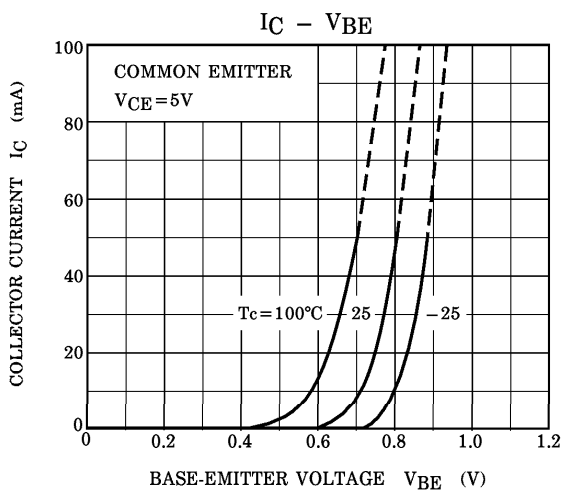
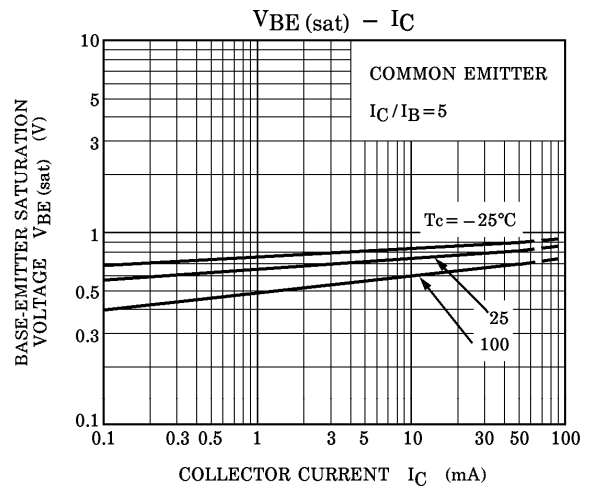
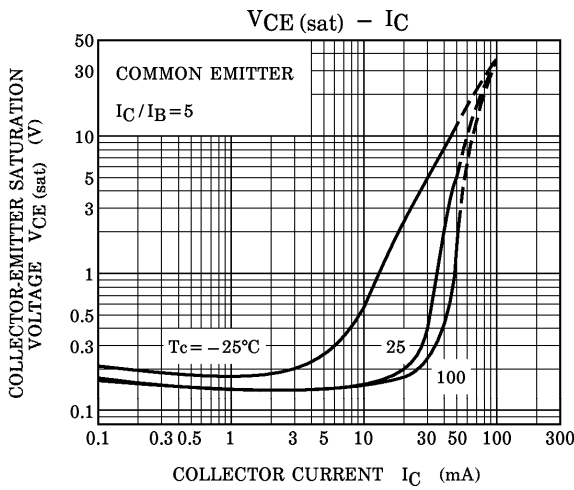
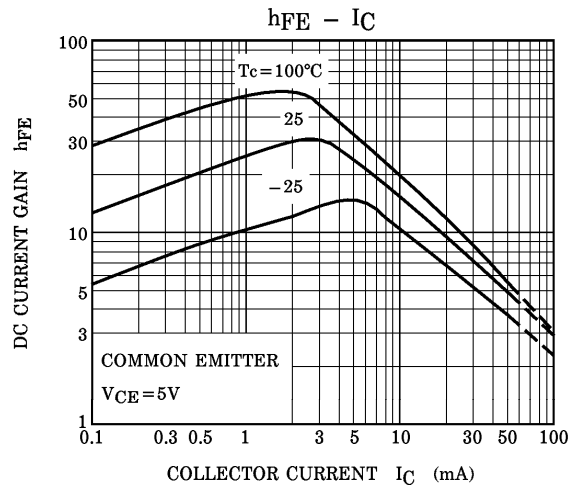
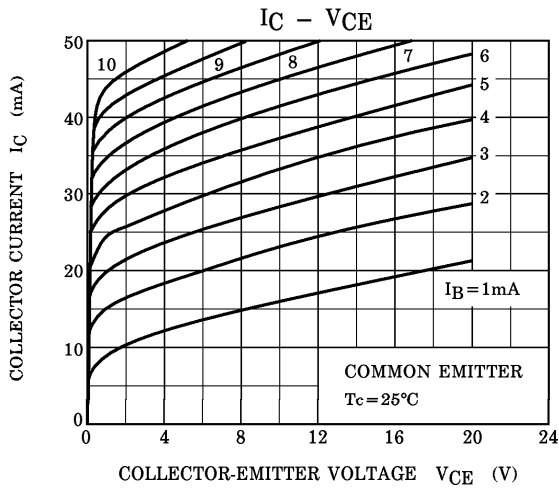
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	1500	V
Collector-Emitter Voltage	$V_{CEO}$	1000	V
		1200	
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	DC	$I_C$	50
	Pulse	$I_{CP}$	100
Base Current	$I_B$	25	mA
Collector Power Dissipation	$P_C$	$T_c = 25^\circ C$	10
		$T_a = 25^\circ C$	2
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$

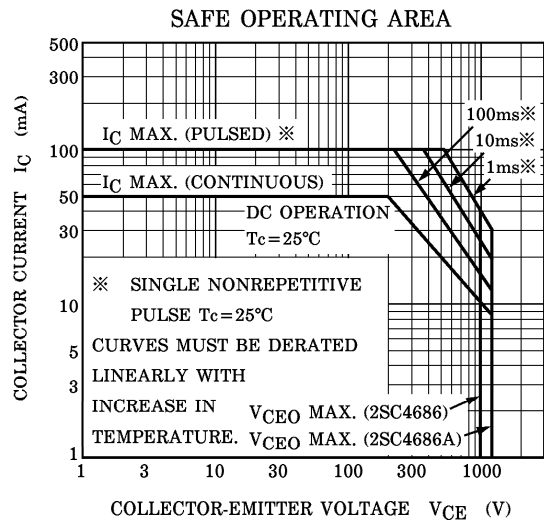
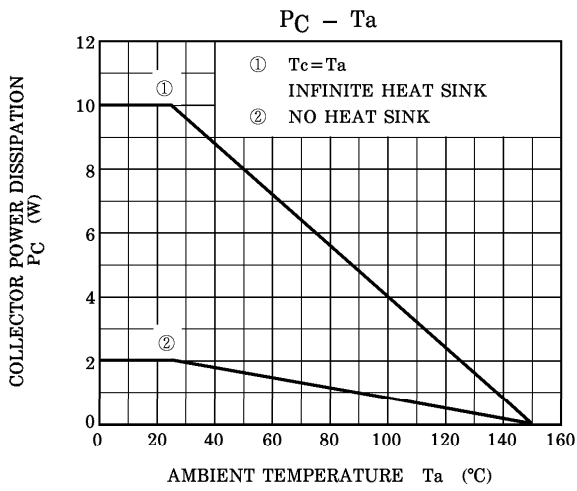
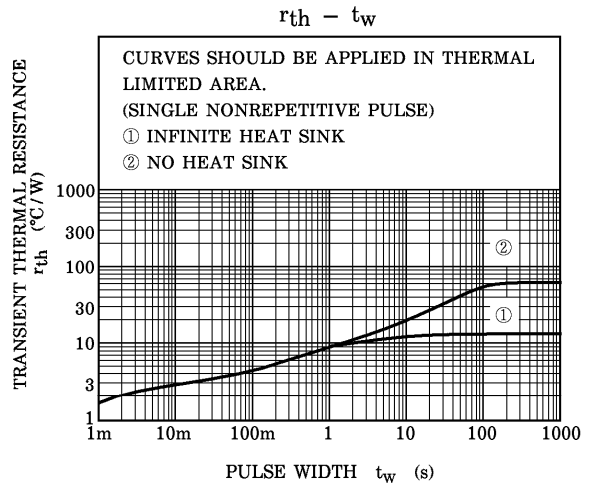
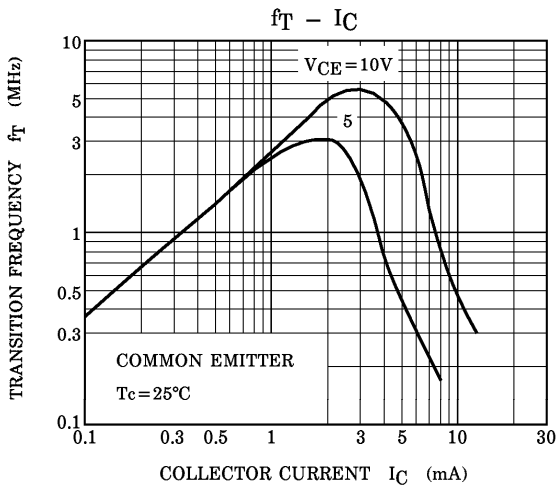


Weight : 1.7g (Typ.)

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 1200V, I_E = 0$	—	—	1.0	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$	—	—	10	$\mu A$
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	1500	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA, I_B = 0$	1000	—	—	V
			1200	—	—	
DC Current Gain	$h_{FE}$	$V_{CE} = 5V, I_C = 3mA$	15	—	60	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10mA, I_B = 2mA$	—	0.16	1.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10mA, I_B = 2mA$	—	0.7	1.5	V
Transition Frequency	$f_T$	$V_{CE} = 10V, I_C = 3mA$	—	5.5	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 100V, f = 1MHz, I_E = 0$	—	2.2	—	pF





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