

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SD2406

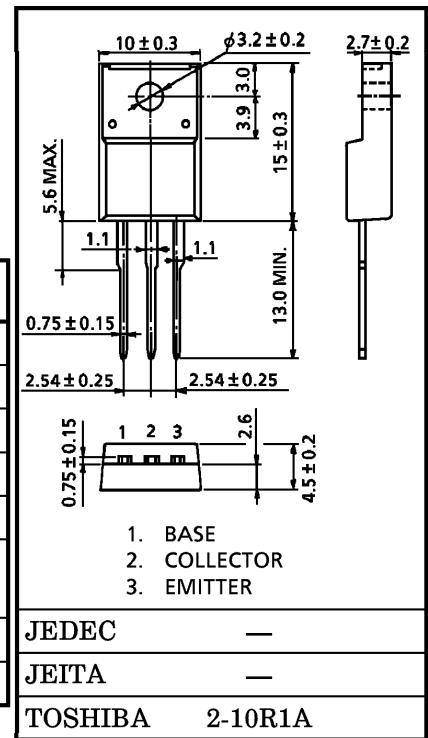
POWER AMPLIFIER APPLICATIONS

- High Power Dissipation : $P_C = 25W$ ($T_c = 25^\circ C$)
- Good Linearity of h_{FE}

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	80	V
Collector-Emitter Voltage	V_{CE0}	80	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	4	A
Base Current	I_B	0.4	A
Collector Power Dissipation ($T_c = 25^\circ C$)	P_C	25	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$

Unit in mm

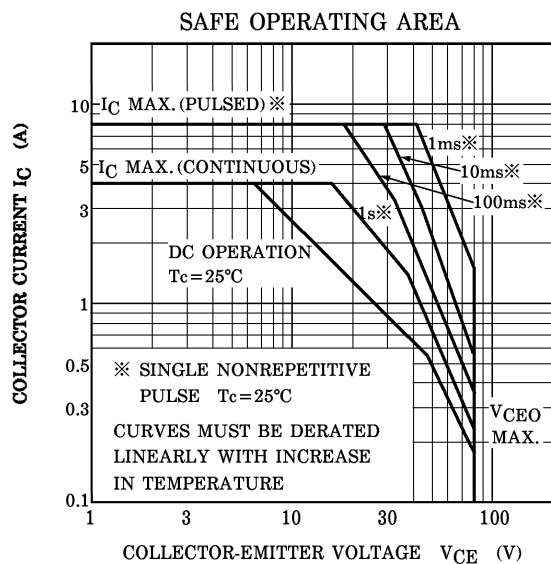
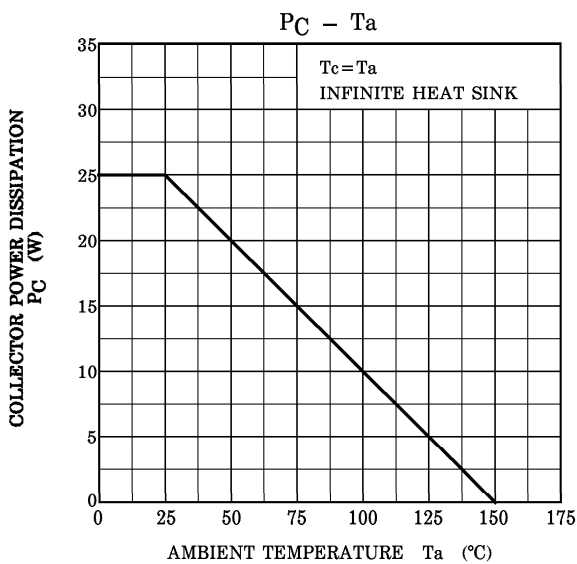
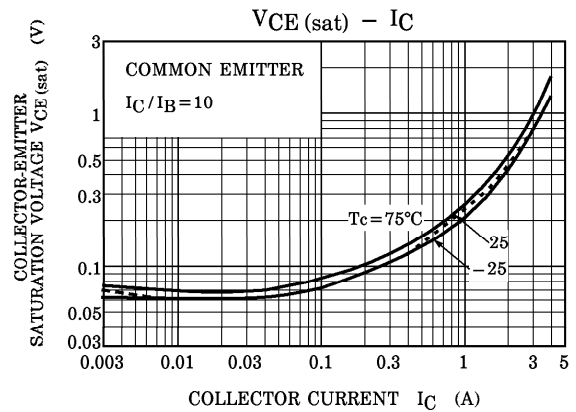
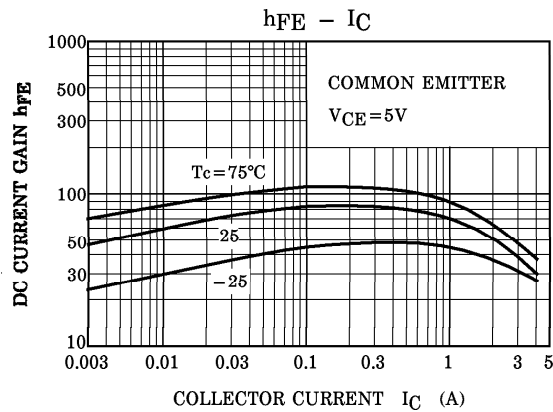
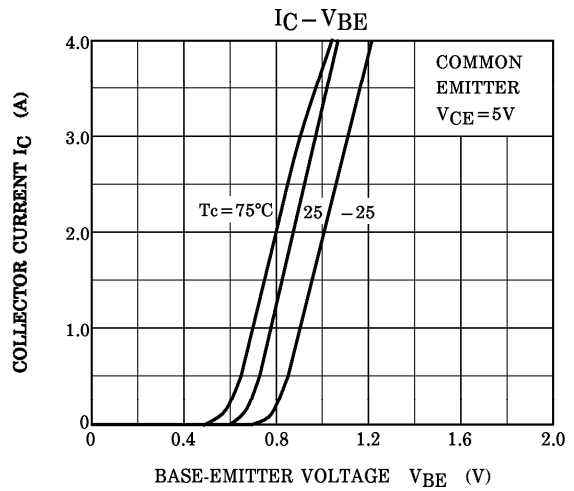
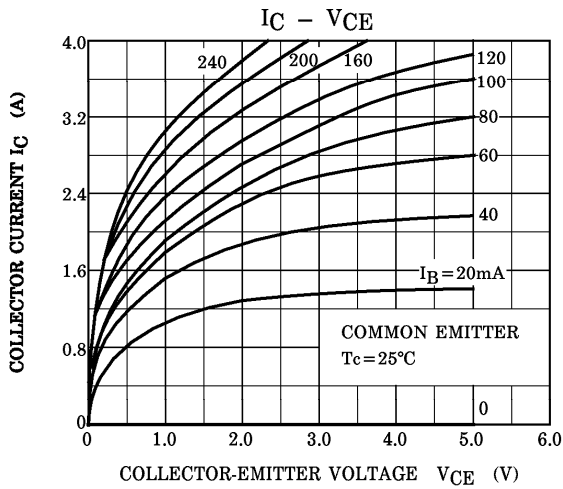


Weight : 1.7g (Typ.)

ELECTRICAL CHARACTERISTIC (T_c = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I _{CBO}	V _{CB} = 80V, I _E = 0	—	—	30	μA
Emitter Cut-off Current	I _{EBO}	V _{EB} = 5V, I _C = 0	—	—	100	μA
Collector-Emitter Breakdown Voltage	V _{(BR) CEO}	I _C = 50mA, I _B = 0	80	—	—	V
Emitter-Base Breakdown Voltage	V _{(BR) EBO}	I _E = 10mA, I _C = 0	5	—	—	V
DC Current Gain	h _{FE} (1) (Note)	V _{CE} = 5V, I _C = 0.5A	70	—	240	
	h _{FE} (2)	V _{CE} = 5V, I _C = 3A	15	50	—	
Collector-Emitter Saturation Voltage	V _{CE (sat)}	I _C = 3A, I _B = 0.3A	—	0.45	1.5	V
Base-Emitter Voltage	V _{BE}	V _{CE} = 5V, I _C = 3A	—	1.0	1.5	V
Transition Frequency	f _T	V _{CE} = 5V, I _C = 0.5A	—	8.0	—	MHz
Collector Output Capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz	—	90	—	pF

(Note) : h_{FE} (1) Classification O : 70~140, Y : 120~240



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