

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SD2406

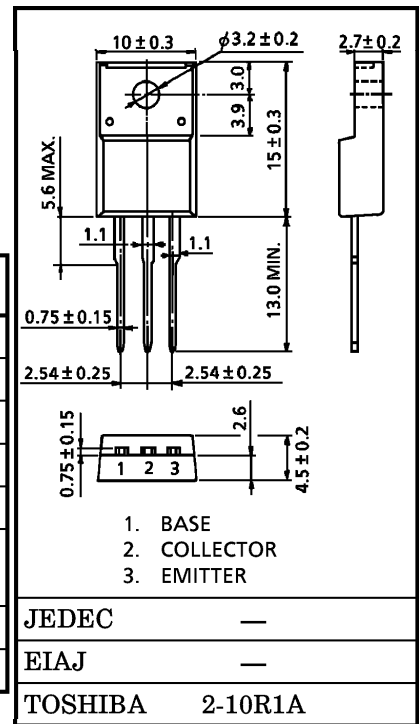
POWER AMPLIFIER APPLICATIONS

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

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

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

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ELECTRICAL CHARACTERISTIC (Ta = 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

