

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

# 2SD2406

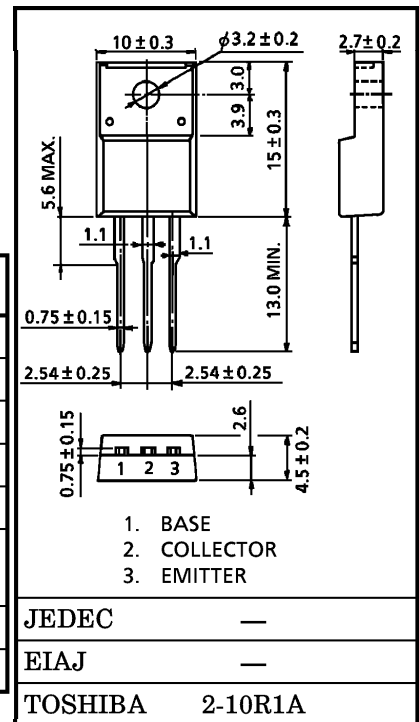
**POWER AMPLIFIER APPLICATIONS**

- 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	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$	—	—	100	$\mu A$
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

