

TOSHIBA TRANSISTOR

SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1306B

TOSHIBA (DISCRETE/OPTO)

T-33-19

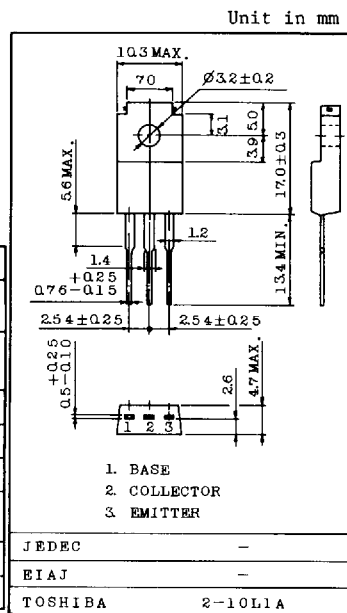
POWER AMPLIFIER APPLICATIONS.  
DRIVER STAGE AMPLIFIER APPLICATIONS.

## FEATURES:

- High Transition Frequency :  $f_T=100\text{MHz}$  (Typ.)
- Complementary to 2SC3298B

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	2SA1306B	$V_{CB0}$	-200 V
Collector-Emitter Voltage	2SA1306B	$V_{CE0}$	-200 V
Emitter-Base Voltage		$V_{EB0}$	-5 V
Collector Current		$I_C$	-1.5 A
Base Current		$I_B$	-0.15 A
Collector Power Dissipation ( $T_c=25^\circ\text{C}$ )		$P_C$	20 W
Junction Temperature		$T_j$	150 $^\circ\text{C}$
Storage Temperature Range		$T_{stg}$	-55 ~ 150 $^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=-160\text{V}, I_E=0$	-	-	-1.0	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=-5\text{V}, I_C=0$	-	-	-1.0	$\mu\text{A}$
Collector-Emitter Breakdown Voltage	2SA1306B	$V_{(BR)CEO}$ $I_C=-10\text{mA}, I_B=0$	-200	-	-	V
DC Current Gain	$h_{FE}$ (Note)	$V_{CE}=-5\text{V}, I_C=-100\text{mA}$	70	-	240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$	-	-	-1.5	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=-5\text{V}, I_C=-500\text{mA}$	-	-	-1.0	V
Transition Frequency	$f_T$	$V_{CE}=-10\text{V}, I_C=-100\text{mA}$	-	100	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=-10\text{V}, I_C=0, f=1\text{MHz}$	-	30	-	pF

Note :  $h_{FE}$  Classification O : 70 ~ 140, Y : 120 ~ 240

