

### Transistor

#### Silicon PNP Epitaxial Type (PCT Process)

#### For General Purpose Switching and Amplifier Applications

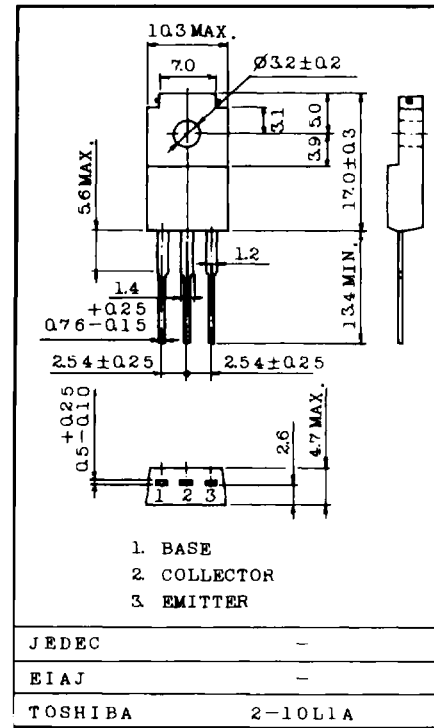
#### Features

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

#### Absolute 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	$^\circ\text{C}$

Unit in mm



#### 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	$C_{out}$	$V_{CB} = -10\text{V}, I_C = 0, f = 1\text{MHz}$	-	30	-	pF

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

