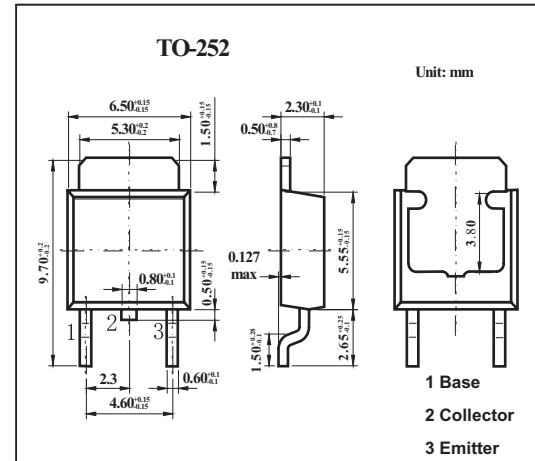


## Silicon Transistor

### 2SA1400-Z



#### ■ Features

- High Voltage:  $V_{CE0}=-400V$
- High speed:  $tr \leq 1.0\mu s$

#### ■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CB0}$	-400	V
Collector to Emitter Voltage	$V_{CE0}$	-400	V
Emitter to Base Voltage	$V_{EB0}$	-7	V
Collector Current (DC)	$I_C$	-0.5	A
Collector Current (Pulse) *1	$I_C$	-1	A
Total power Dissipation ( $T_a=25^\circ C$ ) *2	$P_T$	2	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to 150	$^\circ C$

\*1  $p_w \leq 300\mu s$ , Duty Cycle  $\leq 10\%$

\*2 When mounted on ceramic substrate of  $7.5cm^2 \times 0.7mm$

#### ■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector Cutoff Current	$I_{CB0}$	$V_{CB}=-400V, I_E=0$			-100	$\mu A$
Emitter Cutoff Current	$I_{EB0}$	$V_{EB}=-5V, I_C=0$			-10	V
DC Current Gain*	$h_{FE}$	$V_{CE}=-5V, I_C=-50mA$	30		200	
Collector Saturation Voltage *	$V_{CE(sat)}$	$I_C=-100mA, I_B=-10mA$			-1	V
Base Saturation Voltage *	$V_{BE(sat)}$	$I_C=-100mA, I_B=-10mA$			-1.2	V
Turn-on Time	$t_{on}$	$I_C=-100mA, R_L=1.5K\Omega$			1	$\mu s$
Storage Time	$t_{stg}$	$I_{B1}=-I_{B2}=-10mA, V_{CC}=-150V$			5	
Fall time	$t_f$	$PW \leq 50\mu s$ , Duty Cycle $\leq 2\%$			1	

\*  $PW \leq 350\mu s$ , Duty Cycle  $\leq 2\%$

#### ■ hFE Classification

Marking	N	M	L	K
hFE	30 to 60	40 to 80	60 to 120	100 to 200