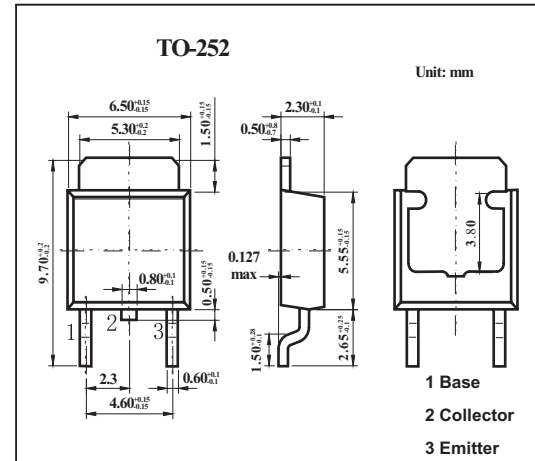


PNP Silicon Transistor

2SA1412-Z

■ Features

- High Voltage: $V_{CE0}=-400V$
- High speed: $t_r \leq 0.7\mu s$



■ 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	-2	A
Collector Current (Pulse) *1	I_C	-4	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 $p_w \leq 10ms, Duty\ Cycle \leq 50\%$

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

2SA1412-Z

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cutoff Current	IcBO	V _{CB} =-400V, I _E =0			-10	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =-5V, I _C =0			-10	μA
DC Current Gain*	h _{FE}	V _{CE} =-5V, I _C =-0.1A	40	60	120	
		V _{CE} =-5V, I _C =-1.0A	10	22		
Collector Saturation Voltage *	V _{CE(sat)}	I _C =-0.5A, I _B =-0.1A		-0.25	-0.5	V
Base Saturation Voltage *	V _{BE(sat)}	I _C =-0.5mA, I _B =-0.1mA		-0.85	-1.2	V
Gain Bandwidth Product	f _T	V _{CE} =-10V, I _E =-100mA		40		MHz
Output Capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1.0MHz		30		pF
Turn-on Time	t _{on}	I _C =-1A, R _L =150Ω I _{B1} =-I _{B2} =-0.2A, V _{CC} =-150V		0.03	0.5	μs
Storage Time	t _{stg}			1.4	2	
Fall time	t _f			0.1	0.7	

* PW ≤ 350μs, Duty Cycle ≤ 2%

■ hFE Classification

Marking	L	K
hFE	40 to 80	60 to 120