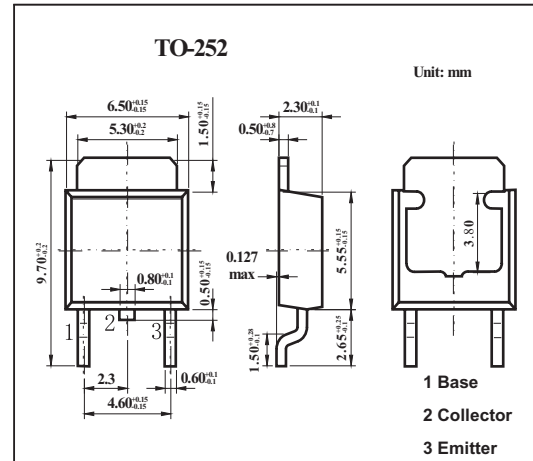


## PNP Silicon Epitaxial Transistor

## 2SB1261-Z

## ■ Features

- Low  $V_{CE(sat)}$ :  $V_{CE(sat)} \leq -0.3V$ .
- High  $h_{FE}$ .

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	-60	V
Collector to emitter voltage	$V_{CEO}$	-60	V
Emitter to base voltage	$V_{EBO}$	-7	V
Collector current	$I_C$	-3	A
Collector current pulse *1	$I_{CP}$	-5	A
Base current	$I_B$	-0.5	A
Total power dissipation	$P_T$	2 *2	W
		10	W
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature range	$T_{stg}$	-55 to +150	$^\circ C$

\*1  $PW \leq 10ms$ , duty cycle  $\leq 50\%$ .

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

**2SB1261-Z**■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -60\text{ V}, I_E = 0$			-10	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -7.0\text{ V}, I_C = 0$			-10	$\mu\text{A}$
DC current gain *	$h_{FE}$	$V_{CE} = -2.0\text{ V}, I_C = -0.6\text{A}$	100		400	
		$V_{CE} = -2.0\text{ V}, I_C = -2\text{A}$	50			
Collector saturation voltage *	$V_{CE(sat)}$	$I_C = -1.5\text{A}, I_B = -0.15\text{A}$		-0.2	-0.3	V
Base saturation voltage *	$V_{BE(sat)}$	$I_C = -1.5\text{A}, I_B = -0.15\text{A}$		-0.94	-1.2	V
Gain bandwidth product	$f_T$	$V_{CE} = -5.0\text{ V}, I_E = 1.5\text{A}$		50		MHz
Output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V}, I_E = 0, f = 1.0\text{ MHz}$		40		pF
Turn-on time	$t_{on}$	$I_C = -1.0\text{ A}, I_{B1} = -I_{B2} = -0.1\text{ A}, V_{CC} = -10\text{ V}, R_L = 10\Omega$		0.15	0.5	$\mu\text{s}$
Storage time	$t_{stg}$			0.5	2.0	$\mu\text{s}$
Fall time	$t_f$			0.1	0.5	$\mu\text{s}$

\* Pulsed:  $PW \leq 350\ \mu\text{s}$ , duty cycle  $\leq 2\%$ ■  $h_{FE}$  Classification

Rank	M	L	K
$h_{FE}$	100~200	160~320	200~400