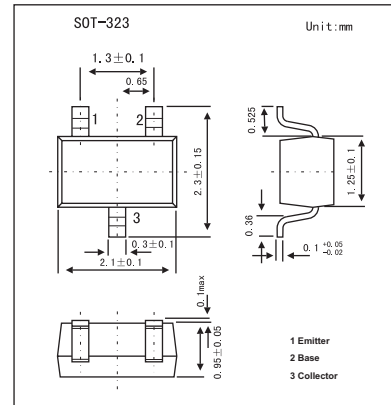


PNP Silicon Epitaxial Transistor

2SB1475

■ Features

- Super miniature package.
- High DC current $I_{C(DC)}=500\text{mA}$ max.
- Low $V_{CE(sat)}$: $V_{CE(sat)}=-60\text{mV}$ at -100mA

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-25	V
Collector to emitter voltage	V_{CEO}	-16	V
Emitter to base voltage	V_{EBO}	-6	V
Collector current	I_C	-500	mA
Total power dissipation	P_T	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -16\text{ V}, I_E = 0$			-100	nA
Emitter cutoff current	I_{EBO}	$V_{EB} = -6.0\text{ V}, I_C = 0$			-100	nA
DC current gain *	h_{FE}	$V_{CE} = -1.0\text{ V}, I_C = -100\text{ mA}$	110	200	400	
Collector saturation voltage *	$V_{CE(sat)}$	$I_C = -100\text{ mA}, I_B = -10\text{ mA}$		-60	-120	mV
		$I_C = -500\text{ mA}, I_B = -20\text{ mA}$		-250	-400	mV
Base saturation voltage *	$V_{BE(sat)}$	$I_C = -2\text{ A}, I_B = -0.1\text{ A}$		-0.95	-1.2	V
Base-emitter voltage *	V_{BE}	$V_{CE} = -1.0\text{ V}, I_C = -10\text{ mA}$		-0.66	-0.7	V
Gain bandwidth product	f_T	$V_{CE} = -3.0\text{ V}, I_E = 100\text{ mA}$	50			MHz
Output capacitance	C_{ob}	$V_{CB} = -10\text{ V}, I_E = 0, f = 1.0\text{ MHz}$			15	pF

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

■ h_{FE} Classification

Marking	B42	B43	B44
h_{FE}	110~240	190~320	270~400