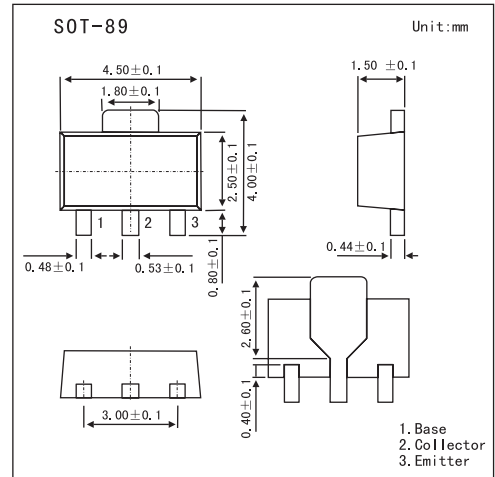


# 2SB1115A

### ■ Features

- World standard miniature package.
- Low  $V_{CE(sat)}$ :  $V_{CE(sat)} = -0.2V$  at 1A



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

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CB0}$	-80	V
Collector to emitter voltage	$V_{CE0}$	-60	V
Emitter to base voltage	$V_{EB0}$	-6	V
Collector current	$I_c$	-1	A
Collector current (pulse) *	$I_c$	-2	A
Total power dissipation	$P_T$	2	W
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature range	$T_{stg}$	-55 to +150	$^\circ C$

\* Pulsed:  $PW \leq 10$  ms, duty cycle  $\leq 50\%$

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

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	$I_{cBO}$	$V_{CB} = -80$ V, $I_E = 0$			-100	nA
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -6.0$ V, $I_c = 0$			-100	nA
DC current gain *	$h_{FE}$	$V_{CE} = -2.0$ V, $I_c = -100$ mA	135	340	400	
		$V_{CE} = -2.0$ V, $I_c = -1.0A$	100	200		
Collector saturation voltage *	$V_{CE(sat)}$	$I_c = -1.0A$ , $I_B = -50$ mA		-0.2	-0.3	V
Base saturation voltage *	$V_{BE(sat)}$	$I_c = -1.0A$ , $I_B = -50$ mA		-0.9	-1.2	V
Base-emitter voltage *	$V_{BE}$	$V_{CE} = -2.0$ V, $I_c = -50$ mA	-600		-700	V
Gain bandwidth product	$f_T$	$V_{CE} = -2.0$ V, $I_E = -100$ mA	80	120		MHz
Output capacitance	$C_{ob}$	$V_{CB} = -10$ V, $I_E = 0$ , $f = 1.0$ MHz		25		pF

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

### ■ $h_{FE}$ Classification

Marking	YQ	YP
$h_{FE}$	135~270	200~400