

■ Features

- Low saturation voltage.

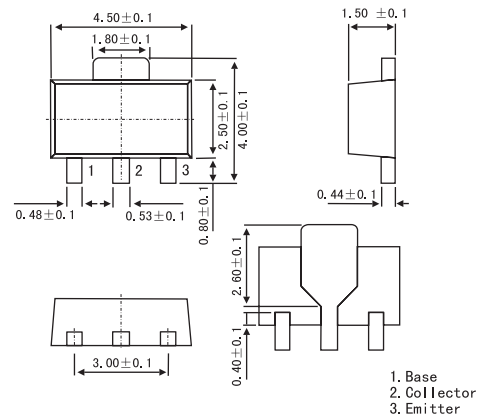
$$V_{CE(sat)} \leq -0.5 (@ I_C = -2A, I_B = -0.2A)$$

- Excellent h_{FE}

$$h_{FE}: 60 \text{ to } 400 (@ V_{CE} = -2V, I_C = -1A)$$

SOT-89

Unit:mm



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

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-40	V
Collector to emitter voltage	V_{CEO}	-30	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_C	-3	A
Collector Power dissipation $T_a = 25^\circ\text{C}$	P_c	1.0	W
$T_c = 25^\circ\text{C}$		10	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to +150	$^\circ\text{C}$

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

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C = -100\mu\text{A}, I_E = 0$	-40			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = -10\text{mA}, I_B = 0$	-30			V
Emitter-base breakdown voltage	V_{EBO}	$I_E = -100\mu\text{A}, I_C = 0$	-5			V
Collector cutoff current	I_{CBO}	$V_{CB} = -30\text{V}, I_E = 0$			-1.0	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -6\text{V}, I_C = 0$			-1.0	μA
DC current gain *	h_{FE}	$V_{CE} = -2.0\text{V}, I_C = -1.0\text{A}$ *	60	160	400	
Collector saturation voltage *	$V_{CE(sat)}$	$I_C = -2\text{A}, I_B = -0.2\text{A}$		-0.3	-0.5	V
Base saturation voltage *	$V_{BE(sat)}$	$I_C = -2\text{A}, I_B = -0.2\text{A}$		-1.0	-2.0	V
Output capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1.0\text{MHz}$		55		pF
Transition frequency	f_T	$V_{CE} = -5.0\text{V}, I_E = -0.1\text{A}, f = 10\text{MHz}$		80		MHz

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