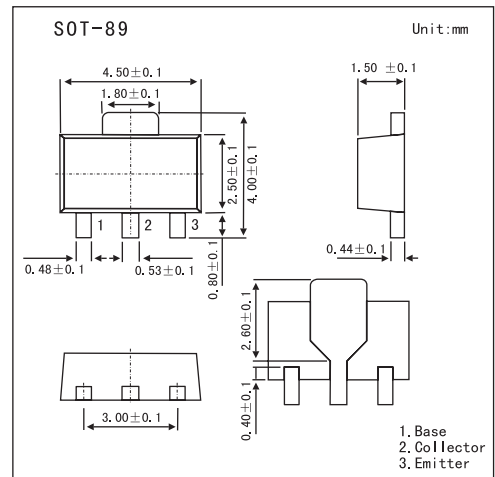


■ Features

- High current capacitance.
- Low collector saturation voltage.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	50	V
Collector-emitter voltage	V <sub>CEO</sub>	30	V
Emitter-base voltage	V <sub>EB0</sub>	6	V
Collector current	I <sub>C</sub>	5	A
Collector current (pulse) *	I <sub>CP</sub>	8	A
Base current	I <sub>B</sub>	0.2	A
Base current (pulse) *	I <sub>BP</sub>	0.4	A
Total power dissipation	P <sub>T</sub>	2	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

\* PW ≤ 10 ms, duty cycle ≤ 50 %

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	ICBO	V <sub>CB</sub> = 50 V, I <sub>E</sub> = 0			100	nA
Emitter cutoff current	IEBO	V <sub>EB</sub> = 6.0 V, I <sub>C</sub> = 0			100	nA
DC current gain *	hFE 1	V <sub>CE</sub> = 1.0 V, I <sub>C</sub> = 1.0 A	80			
	hFE 2	V <sub>CE</sub> = 1.0 V, I <sub>C</sub> = 2.0 A	100	200	400	
Base to emitter voltage *	V <sub>BE</sub>	V <sub>CE</sub> = 1.0 V, I <sub>C</sub> = 0.1 A	600	650	700	mV
Collector saturation voltage	V <sub>CE(sat) 1</sub>	I <sub>C</sub> = 3 V, I <sub>B</sub> = 0.15 A		140	300	mV
	V <sub>CE(sat) 2</sub>	I <sub>C</sub> = 5 V, I <sub>B</sub> = 0.25 A		230	500	mV
Base saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 3 V, I <sub>B</sub> = 0.15 A		0.88	1.2	V
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = 10 V, I <sub>E</sub> = -0.5 A		170		MHz
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1.0 MHz		60		pF
Turn-on time	t <sub>on</sub>	I <sub>C</sub> = 2.0 A, V <sub>CC</sub> = 10 V I <sub>B1</sub> = -I <sub>B2</sub> = 0.1 A R <sub>L</sub> = 500Ω		275		ns
Storage time	t <sub>stg</sub>			485		ns
Fall time	t <sub>f</sub>			45		ns

■ hFE Classification

Marking	EX	EY	EZ
hFE	100~200	160~320	200~400