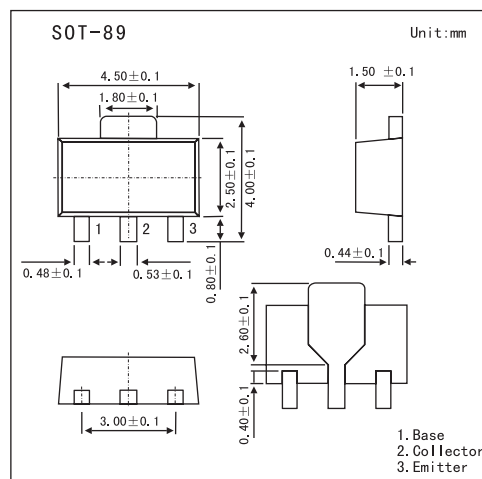


2SD999

■ Features

- World standard miniature package:SOT-89.
- Low collector saturation voltage.
- Excellent dc current gain linearity.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	30	V
Collector-emitter voltage	V _{CEO}	25	V
Emitter-base voltage	V _{EBO}	5	V
Collector current (DC)	I _c	1	A
Collector Current (pulse) *	I _c	1.5	A
Total power dissipation	P _T	2.0	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* Pulse Test PW ≤ 10ms, Duty Cycle ≤ 50%.

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I _{cBO}	V _{CB} = 30 V, I _E = 0 A			100	nA
Emitter cutoff current	I _{EBO}	V _{EB} = 5.0 V, I _c = 0 A			100	nA
DC current gain *	h _{FE}	V _{CE} = 1.0 V, I _c = 100 mA	90	200	400	
		V _{CE} = 1.0 V, I _c = 1.0A	50	140		
Collector saturation voltage *	V _{CE(sat)}	I _c = 1.0 A, I _B = 0.1A		0.21	0.4	V
Base saturation voltage *	V _{BE(sat)}	I _c = 1.0 A, I _B = 0.1A		1	1.2	V
Base-emitter voltage *	V _{BE}	V _{CE} = 6.0 V, I _c = 10 mA	600	630	700	mV
Gain bandwidth product	f _T	V _{CE} = 6.0 V, I _E = -10 mA		130		MHz
Output capacitance	C _{ob}	V _{CB} = 6 V, I _E = 0, f = 1.0 MHz		22		pF

* Pulsed: PW ≤ 350 μs, duty cycle ≤ 2%

■ hFE Classification

Marking	CM	CL	CK
hFE	90~180	135~270	200~400