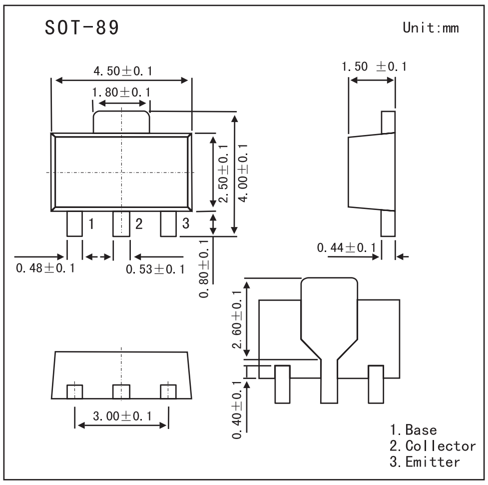
NPN Silicon Epitaxial Transistor

2SD1007



■ Features

- ● High collector to emitter voltage: V_{CEO}＞120V.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	120	V
Collector-emitter voltage	V_{CEO}	120	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	0.7	A
Collector current (pulse) *	$I_{C\ (pu)}$	1.2	A
Collector power dissipation	P_c	2	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

*. PW≤10ms,duty cycle≤50%

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Base-emitter voltage *	V_{BE}	V_{CE} =10V , I_C = 10mA	550	620	650	mV
Collector cutoff current	I_{CBO}	V_{CB} = 120V, I_E=0			100	nA
Emitter cutoff current	I_{EBO}	V_{EB} = 5V, I_C=0			100	nA
DC current gain *	h_{FE}	V_{CE} =1V , I_C = 5.0mA	45	200		
		V_{CE} =1V , I_C = 100mA	90	200	400	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	I_C = 500mA , I_B = 50mA		0.3	0.6	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	I_C = 500mA , I_B = 50mA		0.9	1.5	V
Output capacitance	C_{ob}	V_{CB} = 10V , I_E = 0 , f = 1.0MHz		10		pF
Transition frequency	f_T	V_{CE} = 10V , I_E = -10mA		90		MHz

*. PW≤350μs,duty cycle≤2%

■ h_{FE} Classification

Marking	HR	HQ	HP
hFE	90～180	135～270	200～400