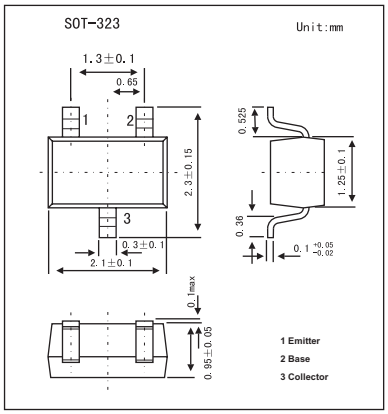
Silicon NPN Epitaxial Planar Type

2SD1819A



■ Features

- High foward current transfer ratio hFE.
- Low collector to emitter saturation voltage $V_{CE(sat)}$.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	60	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	7	V
Peak collector current	I_{CP}	200	mA
Collector current	I_C	100	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 20V, I_E = 0			0.1	μA
	I_{CEO}	V_{CE} = 10V, I_B = 0			100	μA
Collector-base voltage	V_{CBO}	I_C = 10μA, I_E = 0	60			V
Collector-emitter voltage	V_{CEO}	I_C = 2mA, I_B = 0	50			V
Emitter-base voltage	V_{EBO}	I_E = 10μA, I_C = 0	7			V
Forward current transfer ratio	h_{FE}	V_{CE} = 10V, I_C = 2mA	160		460	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 100mA, I_B = 10mA		0.1	0.3	V
Transition frequency	f_T	V_{CB} = 10V, I_E =-2mA, f = 200MHz		150		MHz
Collector output capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz		3.5		pF

■ h_{FE} Classification

Marking	ZQ	ZR	ZS
Rank	Q	R	S
h_{FE}	160～260	210～340	290～460