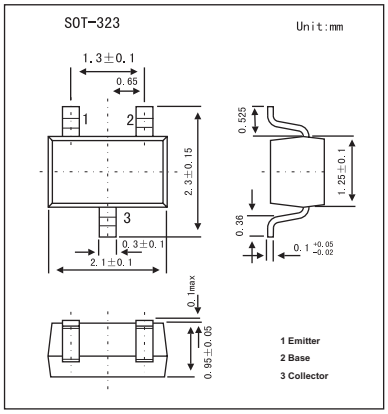
Silicon NPN Epitaxial Planar Type

2SD1979



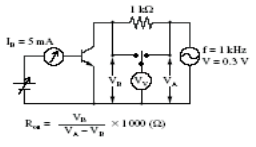
Features

- Low on resistance ron.
- High forward current transfer ratio hFE.

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V_{EBO}	25	V
Collector current	I_C	300	mA
Peak collector current	I_{CP}	500	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-emitter voltage	V_{CEO}	I_C = 1 mA, I_B = 0	20			V
Base-emitter voltage	V_{BE}	V_{CE} = 2 V, I_C = 4 mA		0.6		V
Collector-base cutoff current	I_{CBO}	V_{CB} = 50 V, I_E = 0			1	μA
Collector-emitter cutoff current	I_{CEO}	V_{EB} = 25 V, I_C = 0			1	μA
Forward current transfer ratio	h_{FE}	V_{CE} = 2 V, I_C = 4 mA	500		2500	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 30 mA, I_B = 3 mA			0.1	V
Transition frequency	f_T	V_{CB} = 6 V, I_E = -4 mA, f = 200 MHz		80		MHz
Collector output capacitance	Cob	V_{CB} = 10 V, I_E = 0, f = 1 MHz		4.5		pF
ON resistance	R_{on}			1		Ω

h_{FE} Classification

Marking	3W	
Rank	S	T
h_{FE}	500～1500	800～2500