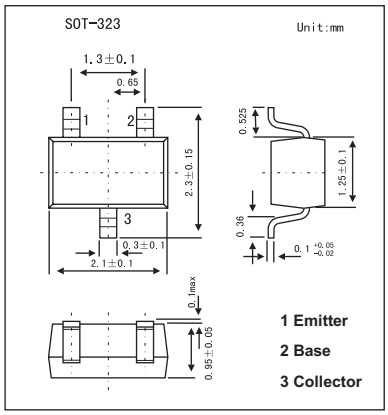
Silicon NPN Epitaxial Planar Type

2SD1821A



■ Features

- High collector-emitter voltage V_{CEO}
- Low noise voltage NV

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	185	V
Collector-emitter voltage	V_{CEO}	185	V
Emitter-base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	100	A
Collector current	I_C	50	A
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 = 100 μA, I_B = 0	185			V
Emitter-base voltage	V_{EBO}	I_E = 10 μA, I_C = 0	5			V
Collector-base cutoff current	I_{CBO}	V_{CB} = 100 V, I_E = 0			1	μA
Forward current transfer ratio	h_{FE}	V_{CE} = 5 V, I_C = 10 mA	130		330	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 30 mA, I_B = 3 mA				V
Transition frequency	f_T	V_{CB} = 10 V, I_E = -10 mA, f = 200 MHz		150		MHz
Collector output capacitance	C_{ob}	V_{CB} = 10 V, I_E = 0, f = 1 MHz		2.3		pF
Noixe voltage	NV	V_{CE} = 10 V, I_C = 1 mA, G_V = 80 dB, R_g = 100KΩ, Function = FLAT		150		mV

■ h_{FE} Classification

Marking	L	
Rank	Q	R
h_{FE}	130～220	185～330