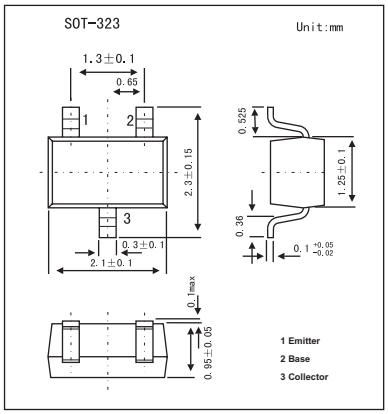
TY Semicondutor®

Product specification

2SD1823



■ Features

- High forward current transfer ratio hFE.
- Low collector-emitter saturation voltage $V_{CE(sat)}$.
- High emitter-base voltage V_{EBO}.
- Low noise voltage NV.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	40	V
Emitter-base voltage	V_{EBO}	15	V
Collector current	I_C	50	mA
Peak collector current	I_{CP}	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-base voltage	V_{CBO}	I_C = 10 μA, I_E = 0	50			V
Collector-emitter voltage	V_{CEO}	I_C = 1 mA, I_B = 0	40			V
Emitter-base voltage	V_{EBO}	I_E = 10 μA, I_C = 0	15			V
Collector-base cutoff current	I_{CBO}	V_{CB} = 20 V, I_E = 0			0.1	μA
Collector-emitter cutoff current	I_{CEO}	V_{CE} = 20 V, I_B = 0			1	μA
Forward current transfer ratio	h_{FE}	V_{CE} = 10 V, I_C = 2 mA	400		2000	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 10 mA, I_B = 1 mA		0.05	0.20	V
Transition frequency	f_T	V_{CB} = 10 V, I_E = ?2 mA, f = 200 MHz		120		MHz

■ hFE Classification

Marking	1Z		
Rank	R	S	T
h_{FE}	400～800	600～1200	1000～2000