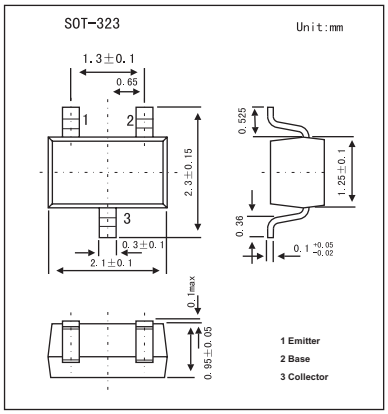
Medium Power Transistor

2SD1949



■ Features

- High current.(I_C=5A)
- Low saturation voltage, typically $V_{CE(sat)}$=0.1V at I_C / I_B=150mA / 15mA.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	0.5	A
Collector power dissipation	P_C	0.2	W
Junction temperature	Tj	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CBO}	I_C=1mA	50			V
Collector-emitter breakdown voltage	BV_{CEO}	V_{CB}=30V	50			V
Emitter-base breakdown voltage	BV_{EBO}	V_{EB}=4V	5			V
Collector cutoff current	I_{CBO}	V_{CE}/I_C=3V/0.01A			0.5	μA
Emitter cutoff current	I_{EBO}	V_{CE}=5V , I_E= -20mA , f=100MHz			0.5	μA
DC current transfer ratio	h_{FE}	V_{CB}=10V , I_E=0A , f=1MHz	120		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100μA			0.4	V
Output capacitance	f_T	I_E=100μA		250		MHz
Transition frequency	C_{ob}	I_C/I_B=150mA/15mA		6.5		pF

■ h_{FE} Classification

Marking	Y	
Rank	Q	R
h_{FE}	120～270	180～390