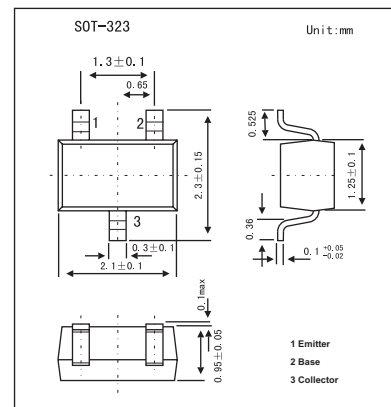


Medium Power Transistor

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 $T_a = 25^\circ C$

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	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditions	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	$V_{CE(sat)}$	$I_C=100\mu A$			0.4	V
Output capacitance	f_t	$I_E=100\mu A$		250		MHz
Transition frequency	C_{ob}	$I_C/I_B=150mA/15mA$		6.5		pF

■ hFE Classification

Marking	Y	
Rank	Q	R
hFE	120~270	180~390