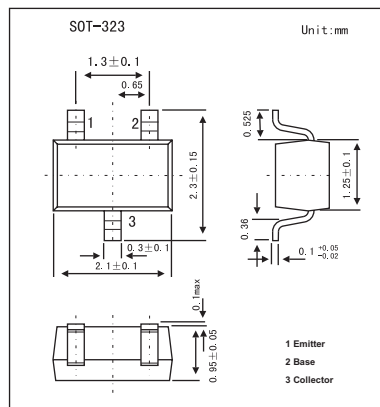


# 2SD1949

### 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	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	$\mu A$
Emitter cutoff current	$I_{EBO}$	$V_{CE}=5V, I_E=-20mA, f=100MHz$			0.5	$\mu A$
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