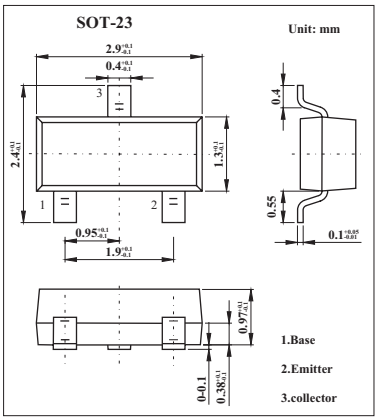
Power Transistor

2SD1782K



Features

- Low $V_{CE(sat)}$.$V_{CE(sat)}$ = 0.2V(Typ.)（I_C / I_B= 0.5A / 50mA）
- High V_{CEO}, V_{CEO}=80V.

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	80	V
Collector-emitter voltage	V_{CEO}	80	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=50μA	80			V
Collector-emitter breakdown voltage	BV_{CEO}	I_C=2mA	80			V
Emitter-base breakdown voltage	BV_{EBO}	I_E=50μA	5			V
Collector cutoff current	I_{CBO}	V_{CB}=50V			0.5	μA
Emitter cutoff current	I_{EBO}	V_{EB}=4V			0.5	μA
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C/I_B=500mA/50mA		0.2	0.5	V
DC current transfer ratio	h_{FE}	V_{CE}=3V, I_C=100mA	120		390	
Output capacitance	f_T	V_{CE}=10V, I_E= -50mA, f=100MHz		120		MHz
Transition frequency	Cob	V_{CB}=10V, I_E=0, f=1MHz		7.5		pF

h_{FE} Classification

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