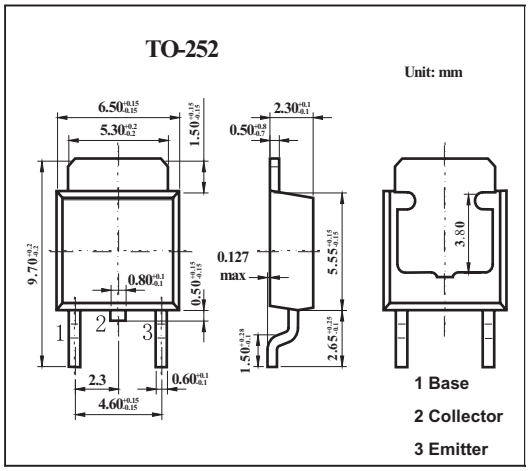
Low $V_{CE(sat)}$ Transistor

2SD2118



Features

- Low $V_{CE(sat)}$.
- Excellent DC current gain characteristics.
- NPN silicon transistor.

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V_{EBO}	6	V
Collector current	I_C	5	A (DC)
		10	A(Pulse)*
Collector current (pulse) *	I_{CP}	10	A
Collector power dissipation	P_C	1	W
T_C = 25℃		10	W
Junction temperature	Tj	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* Pw=10ms.

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CBO}	I_C=50μA	50			V
Collector-emitter breakdown voltage	BV_{CEO}	I_C=1mA	20			V
Emitter-base breakdown voltage	BV_{EBO}	I_E=50μA	6			V
Collector cutoff current	I_{CBO}	V_{CB}=40V			0.5	μA
Emitter cutoff current	I_{EBO}	V_{EB}=5V			0.5	μA
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=4 A, I_B=0.1A		0.3	1.0	V
DC current transfer ratio	h_{FE}	V_{CE}=2V, I_C=0.5A	120		390	
Output capacitance	f_T	V_{CE}=6V, I_E= -50mA, f=100MHz		150		MHz
Transition frequency	Cob	V_{CB}=20V, I_E=0A, f=1MHz		30		pF

h_{FE} Classification

Rank	Q	R
hFE	120～270	180～390