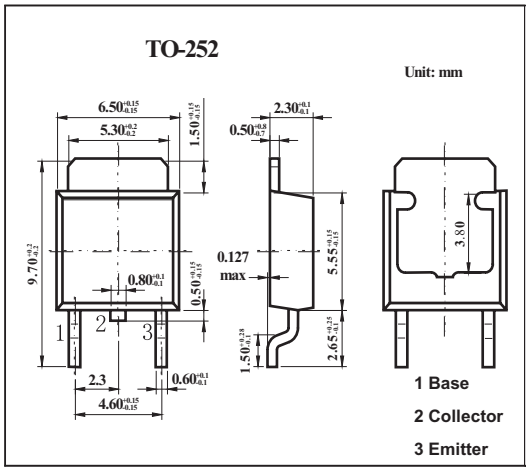
High-current gain Power Transistor

2SD2318



Features

- High DC current gain.
- Low saturation voltage.

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	80	V
Collector-emitter voltage	V_{CEO}	60	V
Emitter-base voltage	V_{EBO}	6	V
Collector current	I_C	3	A
		4.5	A(Pulse)*
Collector current (pulse) *	I_{CP}	4.5	A
Collector power dissipation	P_C	1	W
Tc = 25℃		15	W
Junction temperature	Tj	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* Pw=100ms.

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=1mA	60			V
Emitter-base breakdown voltage	BV_{EBO}	I_E=50μA	6			V
Collector cutoff current	I_{CBO}	V_{CB}=80V			100	μA
Emitter cutoff current	I_{EBO}	V_{EB}=6V			100	μA
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2 A, I_B=0.05A			1.0	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=2 A, I_B=0.05A			1.5	V
DC current transfer ratio	h_{FE}	V_{CE}=4V, I_C=0.5A	560		1800	
Output capacitance	f_T	V_{CE}=5V, I_E= -0.2A, f=10MHz		50		MHz
Transition frequency	C_{ob}	V_{CB}=10V, I_E=0A, f=1MHz		60		pF

h_{FE} Classification

Rank	U	V
hFE	560～1200	820～1800