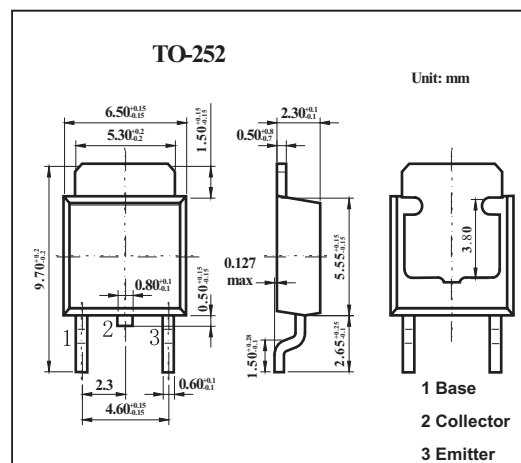


Power Transistor

2SD1733

■ Features

- High V_{CE0} , $V_{CE0}=80V$.
- High I_c , $I_c=1A$ (DC) .
- Good hFE linearity .
- Low $V_{CE(sat)}$.
- Epitaxial planer type
- NPN silicon transistor

■ Absolute Maximum Ratings $T_a = 25^{\circ}C$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	120	V
Collector-emitter voltage	V_{CE0}	80	V
Emitter-base voltage	V_{EB0}	5	V
Collector current	I_c	1	A
	I_c (Pulse) *	2	A
Collector power dissipation	P_c	1	W
		$T_c = 25^{\circ}C$	10
Junction temperature	T_j	150	$^{\circ}C$
Storage temperature	T_{stg}	-55 to +150	$^{\circ}C$

* $P_w=20ms$.

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base voltage	BV_{CB0}	$I_c=50\mu A$	120			V
Collector-emitter voltage	BV_{CE0}	$I_c=1mA$	80			V
Emitter-base voltage	BV_{EB0}	$I_E=50\mu A$	5			V
Collector cutoff current	I_{CB0}	$V_{CB}=100V$			1	μA
Emitter cutoff current	I_{EB0}	$V_{EB}=4V$			1	μA
Forward current transfer ratio	hFE	$V_{CE}=3V, I_c=0.5A$	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c=500mA, I_b=20mA$		0.15	0.4	V
Transition frequency	f_T	$V_{CE}=10V, I_E=-50mA, f=100MHz$		100		MHz
Output capacitance	C_{ob}	$V_{CB}=10V, I_E=0A, f=1MHz$		20		pF

■ hFE Classification

Rank	P	Q	R
hFE	82~180	120~270	180~390