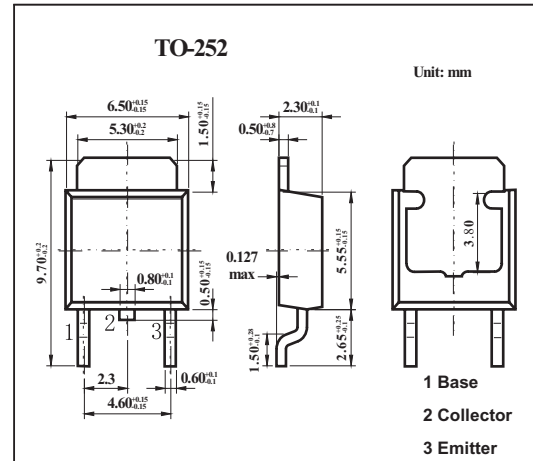


Silicon NPN Epitaxial Transistor

2SD1033



■ Features

- High Voltage $V_{CE0}=150V$

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CB0}	200	V
Collector to emitter voltage	V_{CE0}	150	V
Emitter to base voltage	V_{EB0}	5	V
Peak collector current *1	I_{CP}	3	A
Collector current	I_C	2	A
Collector power dissipation $T_a = 25^\circ C$ *2	P_T	2	W
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

* $PW \leq 10ms, Duty\ Cycle \leq 50\%$

*2 when mounted on ceramic substrate of $7.5cm^2 \times 0.7mm$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 150V, I_E = 0$			50	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			50	μA
DC Current Gain *	h_{FE}	$V_{CE}=10V, I_C=0.4A$	40	100	200	
Collector saturation voltage *	$V_{CE(sat)}$	$I_C = 500mA, I_B = 0.4A$		0.2	1.0	V
Gain saturation Voltage	f_T	$V_{CE}=10V, I_E=0.4A$		10		MHZ

* $PW \leq 350\mu s, Duty\ cycle \leq 2\%$

■ hFE Classification

Marking	M	L	K
hFE	40 to 80	60 to 120	100 to 200