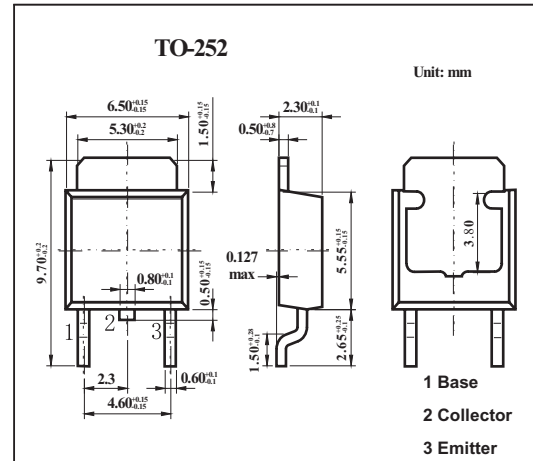


Silicon NPN Triple Diffused Type Transistor

2SB1409S



■ Features



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector to base voltage	V _{CB0}	-180	V
Collector to emitter voltage	V _{CEO}	-160	V
Emitter to base voltage	V _{EBO}	-5	V
Collector current	I _C	-1.5	A
Collector peak current	I _{C(peak)}	-3	A
Collector power dissipation	P _C *1	18	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

*1 Value at T_c = 25°C.

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector to base breakdown voltage	V _{(BR)CBO}	I _C = -1 mA, I _E = 0	-180			V
Collector to emitter breakdown voltage	V _{(BR)CEO}	I _C = -10 mA, R _{BE} = ∞	-160			V
Emitter to base breakdown voltage	V _{(BR)EBO}	I _E = -1 mA, I _C = 0	-5			V
Collector cutoff current	I _{CBO}	V _{CB} = -160 V, I _E = 0			-10	μA
DC current transfer ratio	h _{FE}	V _{CE} = -5 V, I _C = -150 mA*	60		200	
		V _{CE} = -5 V, I _C = -500 mA*	30			
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = -500 mA, I _B = -50 mA			-1	V
Base to emitter voltage	V _{BE}	V _{CE} = -5 V, I _C = -150 mA			-1.5	V
Gain bandwidth product	f _T	V _{CE} = -5 V, I _C = -150 mA		240		MHz
Collector output capacitance	C _{ob}	V _{CB} = -10 A, I _E = 0, f = 1 MHz		25		pF

* Pulse test.

■ h_{FE} Classification

TYPE	B	C
h _{FE}	60 to 120	100 to 200