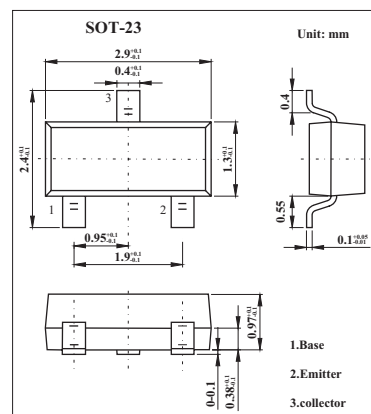


NPN Silicon Transistor

2SC5342SF

■ Features

- Large collector current: $I_c=500\text{mA}$.
- Low collector saturation voltage enabling low-voltage operation.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	40	V
Collector-emitter voltage	V_{CE0}	32	V
Emitter-base voltage	V_{EB0}	5	V
Collector current	I_c	500	mA
Collector dissipation	P_c	200	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CB0}	$I_c=100\mu\text{A}$, $I_E=0$	40			V
Collector-emitter breakdown voltage	BV_{CE0}	$I_c=1\text{mA}$, $I_B=0$	32			V
Emitter-base breakdown voltage	BV_{EB0}	$I_E=10\mu\text{A}$, $I_c=0$	5			V
Collector cutoff current	I_{CB0}	$V_{CB}=40\text{V}$, $I_E=0$			0.1	μA
Emitter cutoff current	I_{EB0}	$V_{EB}=5\text{V}$, $I_c=0$			0.1	μA
DC current transfer ratio	h_{FE}	$V_{CE}=1\text{V}$, $I_c=-100\text{mA}$	70		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c/I_B=100\text{mA}/10\text{mA}$			0.25	V
Transition frequency	f_T	$V_{CE}=6\text{V}$, $I_E=-20\text{mA}$,		300		MHz
Output capacitance	C_{ob}	$V_{CB}=6\text{V}$, $I_E=0$, $f=1\text{MHz}$		7.5		pF

■ h_{FE} Classification

Marking	BA	
	O	Y
h_{FE}	70~140	120~240