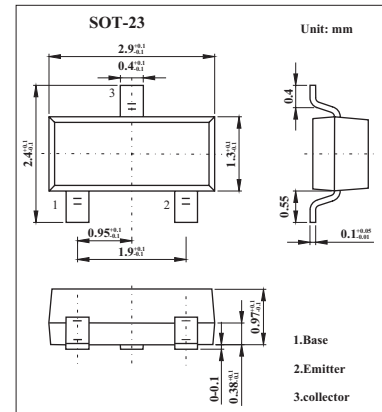


NPN Epitaxial Planar Silicon Transistors

2SC3392

■ Features

- Adoption of FBET process.
- High breakdown voltage : $V_{CEO}=50V$.
- Large current capacity and high fr.
- Ultrasmall-sized package permitting sets to be small sized, slim.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	60	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	500	mA
Collector current (pulse)	I_{CP}	800	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	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 40V, I_E = 0$			0.1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			0.1	μA
DC current Gain	h_{FE}	$V_{CE} = 5V, I_C = 10\text{mA}$	100		560	
Gain bandwidth product	f_T	$V_{CE} = 10V, I_C = 50\text{mA}$		300		MHz
Common base output capacitance	C_{ob}	$V_{CB} = 10V, f = 1\text{MHz}$		3.7		pF
Collector-to-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100\text{mA}, I_B = 10\text{mA}$		0.1	0.3	V
Base-to-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100\text{mA}, I_B = 10\text{mA}$		0.8	1.2	V
Collector-to-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	60			V
Collector-to-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 100\mu\text{A}, R_{BE} = \infty$	50			V
Emitter-to-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu\text{A}, I_C = 0$	5			V
Turn-on time	t_{on}	$V_{CC} = 20V, I_C = 10\text{mA}, I_{B1} = -10\text{mA}, I_{B2} = 100\text{mA}$		70		ns
Storage time	t_{stg}			400		ns
Fall time	t_f			70		ns

■ hFE Classification

Marking	AY			
Rank	4	5	6	7
hFE	100~200	140~280	200~400	280~560