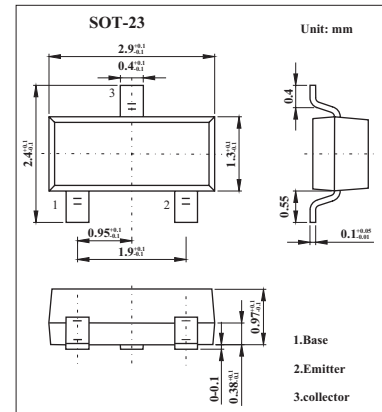


## NPN Epitaxial Planar Silicon Transistors

## 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 smallsized, slim.

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

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	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ C$

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

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

■  $h_{FE}$  Classification

Marking	AY			
Rank	4	5	6	7
$h_{FE}$	100~200	140~280	200~400	280~560