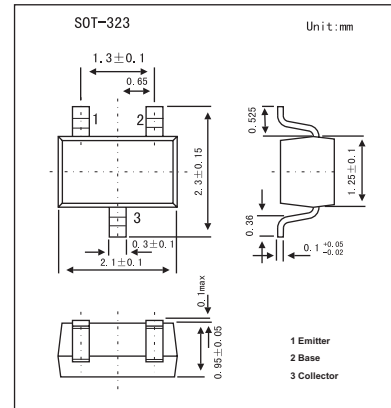


NPN Epitaxial Planar Silicon Transistor

2SC4413

■ Features

- Adoption of FBET process.
- High DC current gain.
- Low collector-to-emitter saturation voltage.
- High VEBO.
- Small Cob.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	60	V
Collector-emitter voltage	V _{CEO}	50	V
Emitter-base voltage	V _{EBO}	15	V
Collector current	I _C	100	mA
Collector current(Pulse)	I _{CP}	200	mA
Base current	I _B	20	mA
Collector dissipation	P _C	150	mW
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

■ Electrical Characteristics Ta = 25°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} = 10V, I _C =0			0.1	μA
DC current gain	h _{FE}	V _{CE} = 5V, I _C = 10mA	800	1500	3200	
Gain bandwidth product	f _T	V _{CE} = 10V, I _C = 10mA		200		MHz
Output capacitance	C _{ob}	V _{CB} = 10V, f = 1MHz		1.5		pF
Collector-to-emitter saturation voltage	V _{CE(sat)}	I _C = 50mA, I _B = 1mA		0.1	0.5	V
Base-to-emitter saturation voltage	V _{BE(sat)}	I _C = 50mA, I _B = 1mA		0.8	1.1	V
Collector-to-base breakdown voltage	V _{(BR)CBO}	I _C = 10μA, I _E = 0	60			V
Collector-to-emitter breakdown voltage	V _{(BR)CEO}	I _C = 1mA, R _{BE} = ∞	50			V
Emitter-to-base breakdown voltage	V _{(BR)EBO}	I _E = 10μA, I _C = 0	15			V

■ Marking

Marking	GY
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