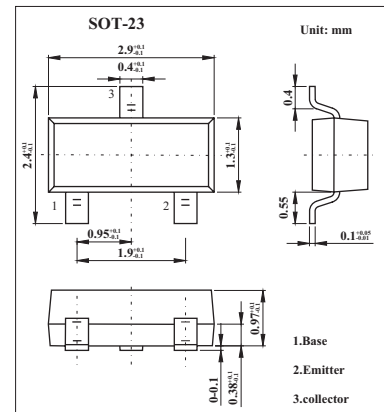


NPN Epitaxial Planar Silicon Transistor

2SC4519

■ Features

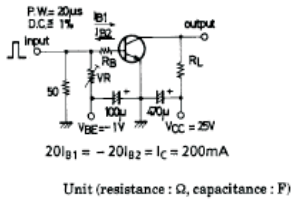
- Adoption of FBET process.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Small-sized package.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	60	V
Collector-emitter voltage	V_{CE0}	45	V
Emitter-base voltage	V_{EB0}	5	V
Collector current	I_C	500	mA
Collector current (pulse)	I_{cp}	1	A
Collector dissipation	P_C	200	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

2SC4519

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	ICBO	V _{CB} = 45V, I _E =0			0.5	μA
Emitter cutoff current	IEBO	V _{EB} = 3V, I _C =0			0.5	μA
DC current gain	hFE	V _{CE} = 2V, I _C = 50mA	100		400	
Gain bandwidth product	f _T	V _{CE} = 2V, I _C = 50mA		360		MHz
Output capacitance	C _{ob}	V _{CB} = 10V, f = 1.0MHz		4		pF
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 200mA, I _B = 10mA		0.15	0.45	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = 200mA, I _B = 10mA		0.8	1.2	V
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 10μA, I _E = 0	60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 1mA, R _{BE} = ∞	45			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = 10μA, I _C = 0	5			V
Turn-on time	t _{on}			60	120	ns
Storage time	t _{stg}			150	270	ns
Fall time	t _f			200	350	ns

■ hFE Classification

Marking	TT		
	4	5	6
hFE	100~200	140~280	200~400