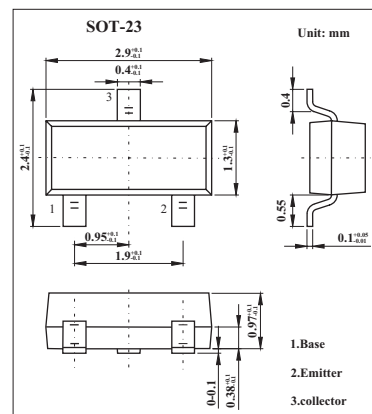


NPN Epitaxial Planar Silicon Transistors

2SC3361

■ Features

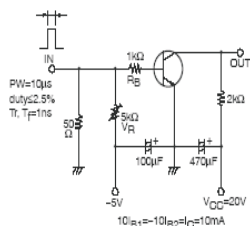
- Fast switching speed.
- High breakdown voltage.

■ 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}	50	V
Emitter-base voltage	V_{EB0}	5	V
Collector current	I_C	150	mA
Collector current (pulse)	I_{CP}	400	mA
Base current	I_B	40	mA
Collector dissipation	P_C	150	mW
Junction temperature	T_J	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

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■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	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}	$V_{CE} = 6V, I_C = 1mA$	90		400	
Gain bandwidth product	f_T	$V_{CE} = 6V, I_C = 1mA$		100		MHz
Common base output capacitance	C_{ob}	$V_{CB} = 6V, f = 1MHz$		2.7		pF
Collector-to-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10mA, I_B = 1mA$		0.1	0.4	V
Base-to-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 10mA, I_B = 1mA$		0.75	1.1	V
Collector-to-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	60			V
Collector-to-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	50			V
Emitter-to-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	5			V
Delay time	t_d			40		ns
Rise time	t_r			80		ns
Storage time	t_{stg}			230		ns
Fall time	t_f			160		ns

■ hFE Classification

Marking	S4	S5	S6
hFE	90~180	135~270	200~400