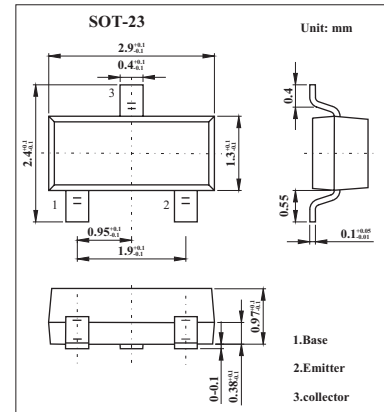


NPN Silicon Epitaxial Transistor

2SC3360

■ Features

- High DC current gain. $h_{FE}=90$ to 450
- High voltage $V_{CE0}=200V$

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	200	V
Collector-emitter voltage	V_{CE0}	200	V
Emitter-base voltage	V_{EB0}	5	V
Collector current	I_C	100	mA
Total power dissipation	P_T	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	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 200V, I_E = 0$			100	nA
Emitter cutoff current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			100	nA
DC current gain *	h_{FE}	$V_{CE} = 10V, I_C = 10mA$	90	200	450	
		$V_{CE} = 10V, I_C = 50mA$	50	200		
Base-emitter voltage *	V_{BE}	$V_{CE} = 10V, I_C = 10mA$	0.6	0.64	0.7	V
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 50mA, I_B = 5mA$		0.1	0.3	V
Base saturation voltage *	$V_{BE(sat)}$	$I_C = 50mA, I_B = 5mA$		0.8	1.2	V
Gain bandwidth product	f_T	$V_{CE} = 10V, I_E = -10mA$		160		MHz
Output capacitance	C_{ob}	$V_{CB} = 30V, I_E = 0, f = 1.0MHz$		2.8		pF
Turn-on time	t_{on}	$I_C = 10mA, I_{B1} = -I_{B2} = 1mA,$		0.15		μs
Storage time	t_{stg}	$V_{CC} = 10V$		1.3		μs
Fall time	t_f	$V_{BE(off)} = -2.5V$		0.3		μs

* Pulse test: $t_p \leq 350 \mu s$; $d \leq 0.02$.

■ hFE Classification

Marking	N15	N16	N17
hFE	90~180	135~270	200~450