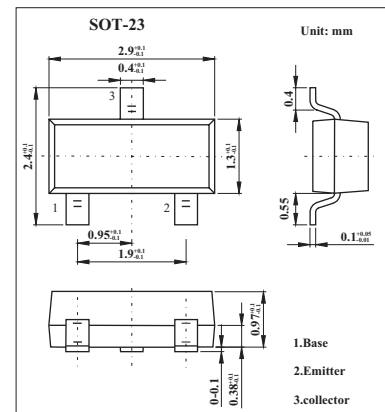


Silicon NPN Epitaxial

2SC3437

■ Features

- High transition frequency: $f_T = 400$ MHz (typ).
- Low saturation voltage: $V_{CE(sat)} = 0.3$ V (max).
- High speed switching time: $t_{stg} = 15$ ns (typ).

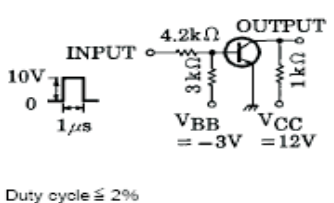


■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	40	V
Collector-emitter voltage	V_{CEO}	15	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	200	mA
Base current	I_B	40	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_J	125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to +125	$^\circ\text{C}$

2SC3437

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 40\text{ V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{ V}, I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 1\text{ V}, I_C = 10\text{ mA}$	40		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 20\text{ mA}, I_B = 1\text{ mA}$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 20\text{ mA}, I_B = 1\text{ mA}$			1.0	V
Transition frequency	f_T	$V_{CE} = 10\text{ V}, I_C = 10\text{ mA}$	200	400		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$		4	6	pF
Turn-on time	t_{on}	 Duty cycle $\leq 2\%$		70		ns
Storage time	t_{stg}			15		ns
Fall time	t_f			30		ns

■ h_{FE} Classification

Marking	CH		
Rank	R	O	Y
h_{FE}	40~80	70~140	120~240