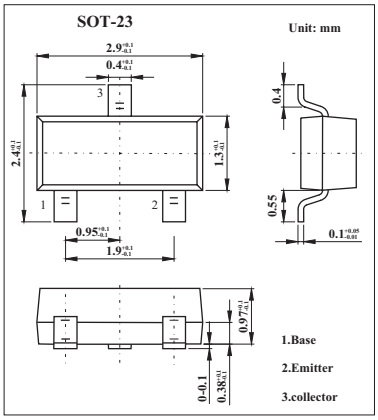
Silicon NPN Epitaxial

2SC3437



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

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	Tj	125	℃
Storage temperature range	T_{stg}	-55 to +125	℃

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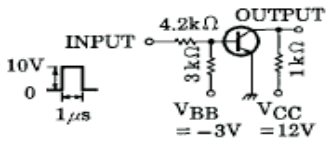
■ Electrical Characteristics Ta = 25℃

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

■ h_{FE} Classification

Marking	CH		
Rank	R	O	Y
hFE	40～80	70～140	120～240