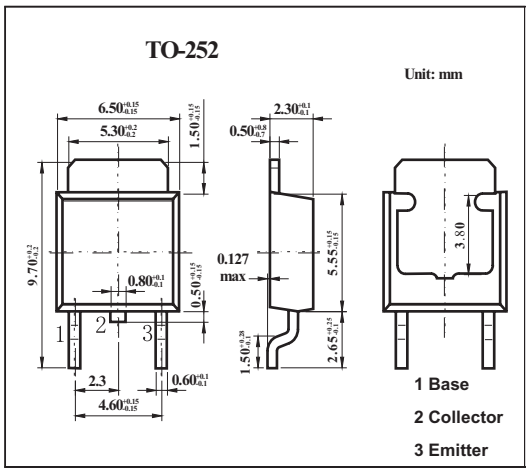
Silicon NPN Epitaxial

2SC3074



■ Features

- Low collector saturation voltage.
- High speed switching time.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	60	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	5	A
Base current	I_B	1	A
Collector power dissipation Ta = 25℃	P_C	1.0	W
Tc = 25℃		20	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

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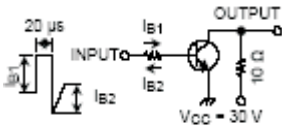
■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB} = 50 V, I_E = 0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB} = 5 V, I_C = 0			1	μA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 10 mA, I_B = 0	50			V
DC current gain	h_{FE}	V_{CE} = 1 V, I_C = 1 A	70		240	
		V_{CE} = 1 V, I_C = 3 A	30			
Collector-emitter saturation voltage	$V_{CE\ (sat)}$	I_C = 3 A, I_B = 0.15 A		0.2	0.4	V
Base-emitter saturation voltage	$V_{BE\ (sat)}$	I_C = 3 A, I_B = 0.15 A		0.9	1.2	V
Transition frequency	f_T	V_{CE} = 4 V, I_C = 1 A		120		MHz
Collector output capacitance	C_{ob}	V_{CB} = 10 V, I_E = 0, f = 1 MHz		80		pF
Turn-on time	t_{on}	 I_{B1} = −I_{B2} = 0.15 A, DUTY CYCLE ≤ 1%		0.1		μs
Storage time	t_{stg}			1		μs
Fall time	t_f			0.1		μs

■ h_{FE} Classification

Marking	C3074	
Rank	O	Y
hFE	70～140	120～240