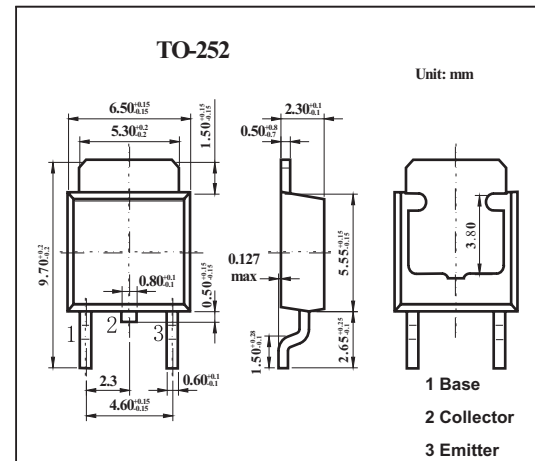


Silicon NPN Epitaxial

2SC3074

■ Features

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

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

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	P_C	$T_a = 25^\circ\text{C}$	1.0	W
		$T_c = 25^\circ\text{C}$	20	W
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$	

2SC3074

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	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}	<p>I_{B1} = -I_{B2} = 0.15 A, DUTY CYCLE ≦ 1%</p>		0.1		μs	
Storage time	t _{stg}				1		μs
Fall time	t _f				0.1		μs

■ hFE Classification

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