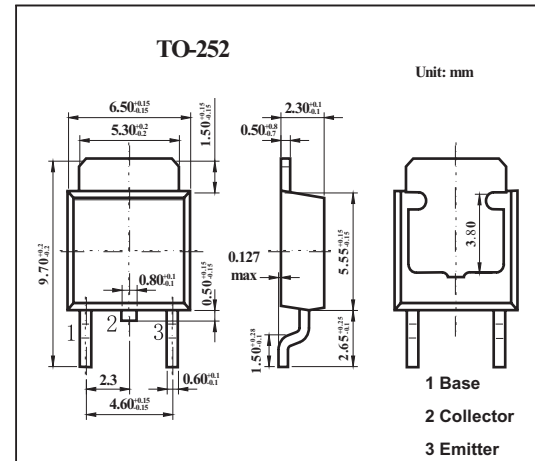


NPN Silicon Epitaxial Transistor

2SC3075

■ Features

- Excellent Switching Times
 $t_r=1.0\mu s$ (Max.) $t_f=1.5\mu s$ (Max.) at $I_c=0.5A$
- High collector Breakdown Voltage: $V_{CE0}=400V$

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CB0}	500	V
Collector to emitter voltage	V_{CE0}	400	V
Emitter to base voltage	V_{EB0}	7	V
Collector current (DC)	I_c	0.8	A
Collector current (Pulse)	I_{cp}	1.5	A
Base Current	I_B	0.5	A
Total Power dissipation $T_a = 25^\circ C$	P_c	1	W
$T_c = 25^\circ C$		10	W
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}	$V_{CB}=400V, I_E=0$			100	μA	
emitter cutoff current	I_{EBO}	$V_{EB}=7V, I_C=0$			100	μA	
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	500			V	
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	400			V	
DC current Gain	h_{FE}	$V_{CE}=5V, I_C=0.1A$	20		100		
		$V_{CE}=5V, I_C=0.5A$	10				
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=0.1A, I_B=0.01A$			0.5	V	
Base- Emitter Voltage	$V_{BE(sat)}$	$I_C=0.1A, I_B=0.01A$			1	V	
Switching time turn-on time	t_r				1	μs	
Switching storage time	t_{stg}					2.5	μs
Switching fall time	t_f		$I_{B1} = -I_{B2} = 0.05 A,$ $DUTY CYCLE \leq 1\%$			1.5	μs