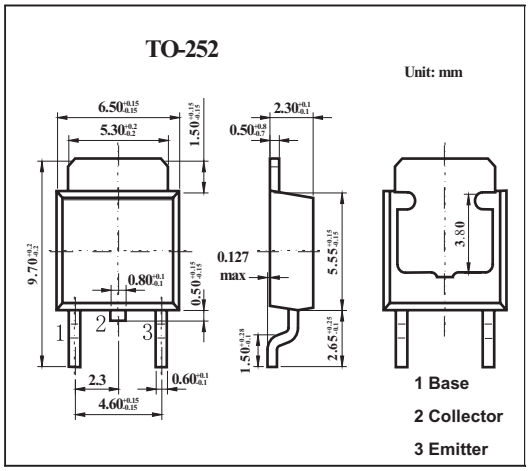
NPN Silicon Epitaxial Transistor

2SC3075



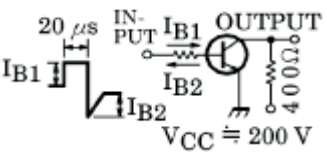
■ Features

- Excellent Switching Times
  t_r=1.0μs (Max.) t_f=1.5μs (Max.) at I_C=0.5A
- High colletor Breakdown Voltage: V_{CEO}=400V

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	500	V
Collector to emitter voltage	V_{CEO}	400	V
Emitter to base voltage	V_{EBO}	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 Ta = 25℃	P_C	1	W
T_C = 25℃		10	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	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-0n time	tr				1	μs
Switching storage time	tstg				2.5	μs
Switching fall time	tf	$I_{B1} = -I_{B2} = 0.05$ A, DUTY CYCLE ≤ 1%			1.5	μs