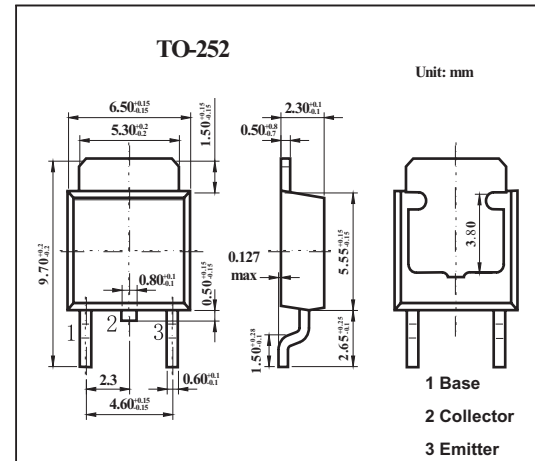


## NPN Silicon Epitaxial Transistor

## 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	$\mu A$	
emitter cutoff current	$I_{EBO}$	$V_{EB}=7V, I_C=0$			100	$\mu A$	
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	$\mu s$	
Switching storage time	$t_{stg}$					2.5	$\mu s$
Switching fall time	$t_f$					1.5	$\mu s$