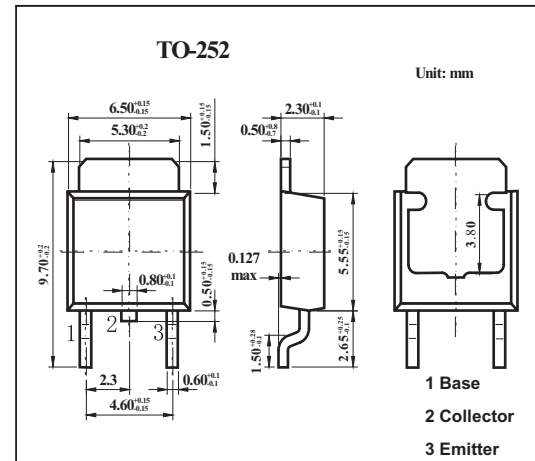


## Silicon NPN Triple Diffusion Planar Type

## 2SC5063

## ■ Features

- High-speed switching
- High collector to base voltage  $V_{CB0}$   
Wide area of safe operation (ASO)

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CB0}$	500	V
Collector to emitter voltage	$V_{CES}$	500	V
	$V_{CEO}$	400	V
Emitter to base voltage	$V_{EBO}$	7	V
Peak collector current	$I_{CP}$	3	A
Collector current	$I_C$	1.5	A
Base current	$I_B$	0.5	A
Collector power dissipation	$P_C$	$T_C=25^\circ\text{C}$	25
		$T_a=25^\circ\text{C}$	1.3
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 500\text{V}, I_E = 0$			100	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 5\text{V}, I_C = 0$			100	$\mu\text{A}$
Collector to emitter voltage	$V_{CEO}$	$I_C = 10\text{mA}, I_B = 0$	400			V
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 5\text{V}, I_C = 0.1\text{A}$	15			
		$V_{CE} = 5\text{V}, I_C = 0.8\text{A}$	8			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 0.8\text{A}, I_B = 0.16\text{A}$			1	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 0.8\text{A}, I_B = 0.16\text{A}$			1.5	V
Transition frequency	$f_T$	$V_{CE} = 10\text{V}, I_C = 0.2\text{A}, f = 10\text{MHz}$		25		MHz
Turn-on time	$t_{on}$	$I_C = 0.8\text{A}, I_{B1} = 0.16\text{A}, I_{B2} = -0.32\text{A}, V_{CC} = 150\text{V}$			0.7	$\mu\text{s}$
Storage time	$t_{stg}$				2	
Fall time	$t_f$				0.3	