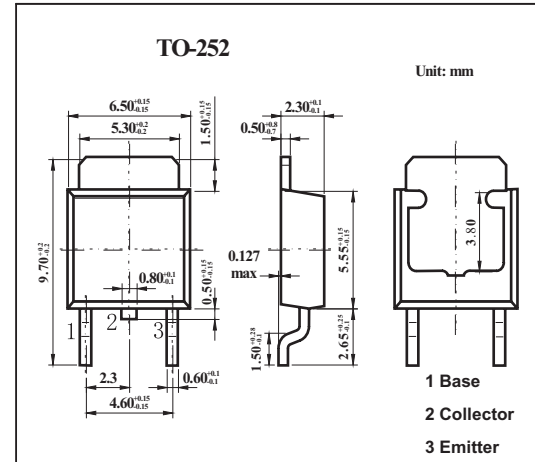


Silicon NPN Triple Diffusion Planar Type

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	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$			100	μA
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	μs
Storage time	t_{stg}				2	
Fall time	t_f				0.3	