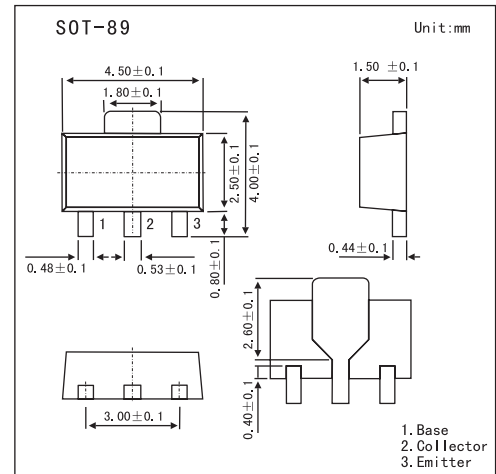


NPN Epitaxial Planar Silicon Transistor

2SC5069

■ Features

- High current capacity.
- Adoption of MBIT process.
- High DC current gain.
- Low collector-to-emitter saturation voltage.
- High V_{EBO} .

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	25	V
Emitter-base voltage	V_{EBO}	15	V
Collector current	I_C	2	A
Collector current (pulse)	I_{CP}	4	A
Base Current	I_B	0.4	A
Collector dissipation	P_C^*	1.5	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* Mounted on ceramic board(250mm²X0.8mm).

2SC5069

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit	
Collector cutoff current	IcBO	V _{CB} = 20 V, I _E =0			100	μA	
Emitter cutoff current	I _{EBO}	V _{EB} = 10 V, I _C =0			100	μA	
DC current gain	h _{FE}	V _{CE} = 5 V, I _C = 500 mA	800	1500	3200		
		V _{CE} = 5 V, I _C = 1 A	600				
Gain bandwidth product	f _T	V _{CE} = 10 V, I _C = 50 mA		260		MHz	
Output capacitance	C _{ob}	V _{CB} = 10V, f = 1.0MHz		27		pF	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 1 A, I _B = 20 mA		0.15	0.5	V	
Base-emitter saturation voltage	V _{BE(sat)}	I _C = 1 A, I _B = 20 mA		0.85	1.2	V	
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 10μA, I _E = 0	30			V	
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 1mA, R _{BE} = ∞	25			V	
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = 10μA, I _C = 0	15			V	
Turn-ON Time	t _{on}			0.14		μs	
Strange Time	t _{stg}				1.35		μs
Fall Time	t _f				0.1		μs

■ Marking

Marking	CU
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