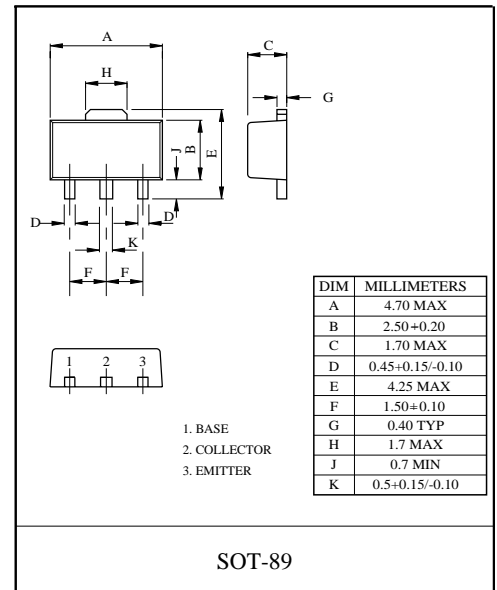


TRANSISTOR (NPN)

FEATURES

- Switching and amplification in high voltage
Applications such as telephony
- Low current(max. 600mA)
- High voltage(max.180V)

Marking: 1G6 or N51



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	180	V
V _{CEO}	Collector-Emitter Voltage	160	V
V _{EBO}	Emitter-Base Voltage	6	V
I _c	Collector Current -Continuous	0.6	A
P _c	Collector Power Dissipation	0.5	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-65~150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	180			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	160			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} =120V, I _E =0			50	nA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0			50	nA
DC current gain	h _{FE(1)}	V _{CE} =5V, I _C =1mA	80			
	h _{FE(2)}	V _{CE} =5V, I _C =10mA	80		300	
	h _{FE(3)}	V _{CE} =5V, I _C =50mA	30			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =10mA, I _B =1mA			0.15	V
	V _{CE(sat)}	I _C =50mA, I _B =5mA			0.2	V
Base-emitter voltage	V _{BE(sat)}	I _C =10mA, I _B =1mA			1	V
	V _{BE(sat)}	I _C =50mA, I _B =5mA			1	V
Transition frequency	f _T	V _{CE} =10V, I _C =10mA, f=100MHz	100			MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			6	pF
Noise figure	NF	V _{CE} =5V, I _C =0.2mA, f=10Hzto15.7KHZ, R _s =10Ω			8	dB



Typical Characteristics

