

Specification	Products	Type
		BCW71

1. SCOPE BCW71

1.1 Scope. This specification covers the detail requirements for one type NPN silicon epitaxial planar transistor designed for audio frequency small signal amplifier.

1.2 Physical dimensions. See figure 1.

1.3 Absolute maximum ratings. ($T_a=25\text{ }^\circ\text{C}$)

Collector to base voltage	V_{CBO}	50V
Collector to emitter voltage	V_{CEO}	45V
Emitter to base voltage	V_{EBO}	5V
Collector current	I_C	100mA
Power dissipation-Free Air	P_C	200mW
*Power dissipation-Ceramic Substrate	P_C	350mW
Junction temperature	T_j	150 $^\circ\text{C}$
Storage temperature range	T_{stg}	-65~150 $^\circ\text{C}$

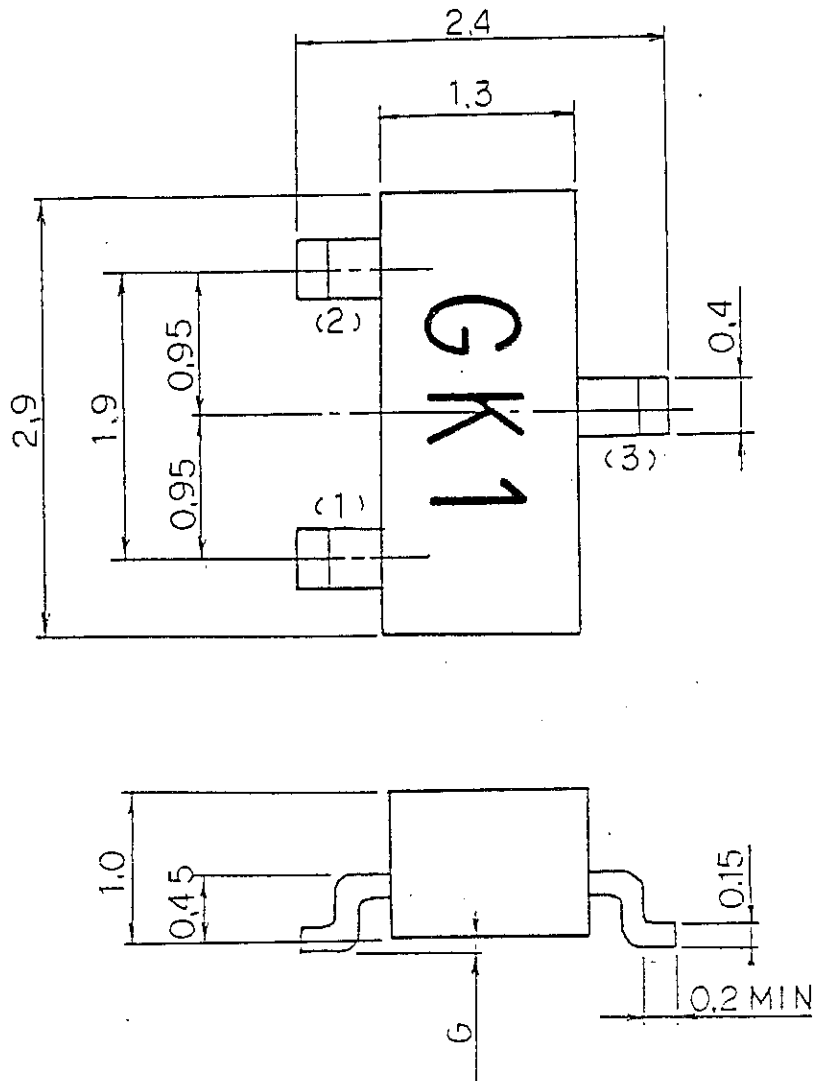
*Package mounted on ceramic 7×5×0.6mm

2. Electrical characteristics ($T_a=25\text{ }^\circ\text{C}$)

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
BV_{CBO}	$I_C=50\text{ }\mu\text{A}$	50	—	—	V
BV_{CEO}	$I_C=2\text{mA}$	45	—	—	V
BV_{EBO}	$I_E=50\text{ }\mu\text{A}$	5	—	—	V
I_{CBO}	$V_{CB}=20\text{V}$	—	—	100	nA
$V_{CE}(\text{sat})$	$I_C=10\text{mA}$, $I_B=0.5\text{mA}$	—	—	0.25	V
$V_{BE}(\text{ON})$	$V_{CE}=5\text{V}$, $I_C=2\text{mA}$	0.55	—	0.7	V
h_{FE}	$V_{CE}=5\text{V}$, $I_C=2\text{mA}$	110	—	230	
C_{ob}	$V_{CB}=10\text{V}$, $f=1\text{MHz}$	—	—	4	pF
NF	$V_{CE}=5\text{V}$, $I_C=0.2\text{mA}$, $f=1\text{KHz}$ $R_s=2\text{k}\Omega$	—	—	10	dB
I_{CBO}	$V_{CB}=20\text{V}$, $T_a=100\text{ }^\circ\text{C}$	—	—	10	μA

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UNIT : mm
Low Profil G = 0~0.1
High Profil G = 0.1~0.25

- (1) Emitter
- (2) Base
- (3) Collector

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