

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 $^\circ\text{C}$

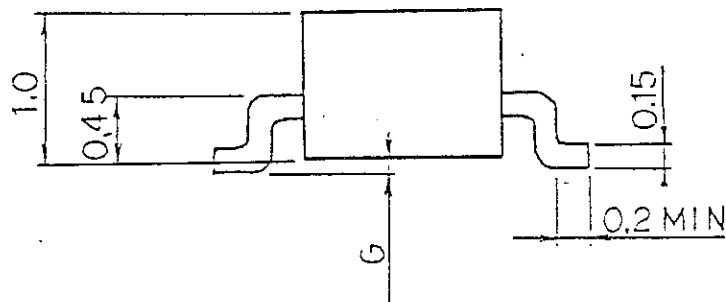
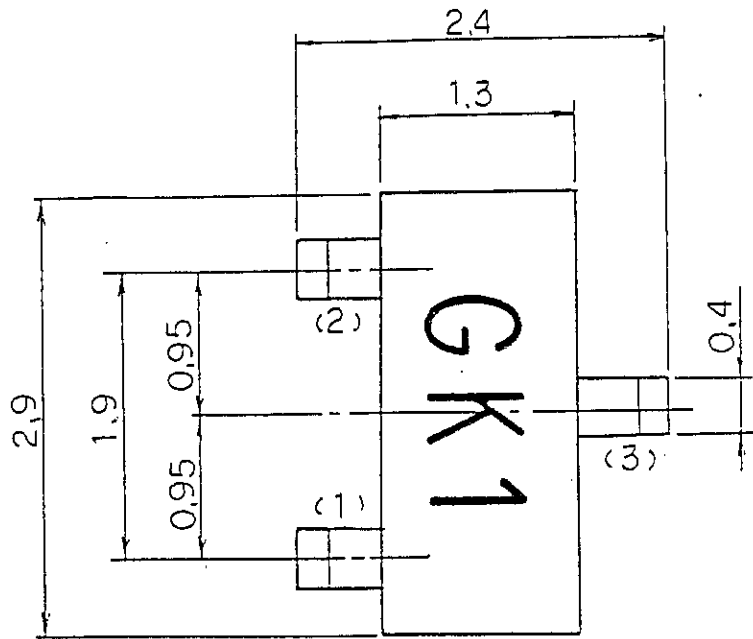
\*Package mounted on ceramic 7×5×0.6mm

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

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
BVCBO	$I_C=50\text{ }\mu\text{A}$	50	—	—	V
BVCEO	$I_C=2\text{mA}$	45	—	—	V
BVEBO	$I_E=50\text{ }\mu\text{A}$	5	—	—	V
ICBO	$V_{CB}=20\text{V}$	—	—	100	nA
VCE(sat)	$I_C=10\text{mA}$ , $I_B=0.5\text{mA}$	—	—	0.25	V
VBE(ON)	$V_{CE}=5\text{V}$ , $I_C=2\text{mA}$	0.55	—	0.7	V
hFE	$V_{CE}=5\text{V}$ , $I_C=2\text{mA}$	110	—	230	
Cob	$V_{CB}=10\text{V}$ , $f=1\text{MHz}$	—	—	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
ICBO	$V_{CB}=20\text{V}$ , $T_a=100\text{ }^\circ\text{C}$	—	—	10	$\mu\text{A}$

# MASTER

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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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