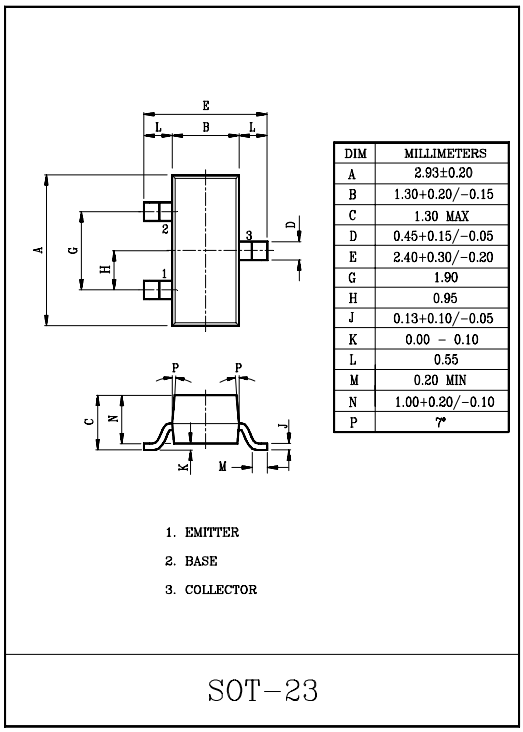
BCW69/70/89

EPITAXIAL PLANAR PNP TRANSISTOR

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES

- Super Mini Packaged Transistors for Hybrid circuits.
- For Complementary with NPN Type BCW71/72, BCV71.



DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/−0.15
C	1.30 MAX
D	0.45+0.15/−0.05
E	2.40+0.30/−0.20
G	1.90
H	0.95
J	0.13+0.10/−0.05
K	0.00 − 0.10
L	0.55
M	0.20 MIN
N	1.00+0.20/−0.10
P	7°

SOT-23

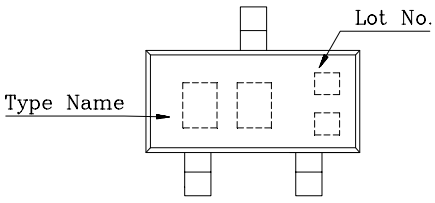
MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	BCW69/70	V_{CBO}	-50	V
	BCW89		-60	
Collector-Emitter Voltage	BCW69/70	V_{CEO}	-45	V
	BCW89		-60	
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current		I_C	-100	mA
Emitter Current		I_E	100	mA
Collector Power Dissipation		P_C	200	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-65~150	℃

MARK SPEC

TYPE	MARK
BCW69	H 1
BCW70	H 2
BCW89	H 5

Marking



ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Emitter Breakdown Voltage	BCW69/70	$V_{(BR)CEO}$	I_C=-2mA, I_B=0	-45	-	-	V
	BCW89			-60	-	-	
Collector-Base Breakdown Voltage	BCW69/70	$V_{(BR)CBO}$	I_C=-10μA, I_E=0	-50	-	-	V
	BCW89			-60	-	-	
Collector-Emitter Breakdown Voltage	BCW69/70	$V_{(BR)CES}$	I_C=-10μA, V_{BE}=0	-50	-	-	V
	BCW89			-60	-	-	
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	I_E=10μA, I_C=0	-5.0	-	-	V
Collector Cut-off Current		I_{CBO}	V_{CB}=-20V, I_E=0	-	-	-100	nA
			Ta=100℃, V_{CB}=-20V, I_E=0	-	-	-10	μA
DC Current Gain	BCW69/89	h_{FE}	V_{CE}=-5V, I_C=-10μA	-	90	-	
	BCW70			-	150	-	
	BCW69/89		V_{CE}=-5V, I_C=-2mA	120	-	260	
	BCW70			215	-	500	
Base-Emitter Voltage		$V_{BE(ON)}$	V_{CE}=-5V, I_C=-2mA	-600	-	-750	mV
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	I_C=-10mA, I_B=-0.5mA	-	-720	-	mV
			I_C=-50mA, I_B=-2.5mA	-	-810	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=-10mA, I_B=-0.5mA	-	-	-300	mV
			I_C=-50mA, I_B=-2.5mA	-	-180	-	
Transition Frequency		f_T	I_C=-10mA, V_{CE}=-5V, f=100MHz	-	150	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	-	7.0	pF
Noise Figure		NF	I_C=-0.2mA, V_{CE}=-5V, Rg=2kΩ, f=1kHz	-	-	10	dB