

# MICRO ELECTRONICS CRO

**BC 368, 9**

BC 368 (NPN) and BC 369 (PNP) are complementary silicon epitaxial transistors for audio frequency application.

EPITAXIAL TRANSISTORS

TO-92B



ECB

## ABSOLUTE MAXIMUM RATINGS

Collector Current-Continuous

Collector-Emitter Voltage

Emitter-Base Voltage

Total Power Dissipation

Operating Junction and Storage Temperature Range

$V_{CEO}$

$V_{EBO}$

$P_{tot}$

$T_j, T_{stg}$

1A

20V

5V

0.8W

-55 to 150°C

ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Emitter Breakdown Voltage	BV <sub>CE</sub> S	25			V	$I_C = 1\text{mA}$ $V_{BE} = 0$
Collector-Emitter Breakdown Voltage	BV <sub>CE0</sub> *	20			V	$I_C = 10\text{mA}$ $I_B = 0$
Emitter-Base Breakdown Voltage	BV <sub>EB</sub> 0	5			V	$I_E = 0.1\text{mA}$ $I_C = 0$
Collector Cutoff Current	IC <sub>BO</sub>			10	$\mu\text{A}$	$I_E = 0$ $V_{CB} = 25\text{V}$
Collector Cutoff Current	IC <sub>BO</sub>			1	mA	$I_B = 0$ $V_{CB} = 25\text{V}$ $T_A = 150^\circ\text{C}$
Emitter Cutoff Current	IE <sub>BO</sub>			10	$\mu\text{A}$	$I_C = 0$ $V_{EB} = 5\text{V}$
Collector-Emitter Saturation Voltage	V <sub>CE</sub> (sat)*			0.5	V	$I_C = 1\text{A}$ $I_B = 0.1\text{A}$
Base-Emitter Voltage	V <sub>BE</sub>			0.6	V	$I_C = 5\text{mA}$ $V_{CE} = 10\text{V}$
Base-Emitter Voltage	V <sub>BE</sub> *			1	V	$I_C = 1\text{A}$ $V_{CE} = 1\text{V}$
D.C. Current Gain	HFE	50				$I_C = 5\text{mA}$ $V_{CE} = 10\text{V}$
D.C. Current Gain	HFE*	85		375		$I_C = 500\text{mA}$ $V_{CE} = 1\text{V}$
D.C. Current Gain	HFE*	60				$I_C = 1\text{A}$ $V_{CE} = 1\text{V}$
Current Gain-Bandwidth Product	f <sub>T</sub>		65		MHz	$I_C = 10\text{mA}$ $V_{CE} = 5\text{V}$ $f = 20\text{MHz}$
Output Capacitance	C <sub>ob</sub>			30	PF	$V_{CB} = 10\text{V}$

\* Pulse Test : Pulse Width = 300 $\mu\text{s}$ , Duty Cycle = 1%.

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