

# 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		1A
Collector-Emitter Voltage	$V_{CEO}$	20V
Emitter-Base Voltage	$V_{EBO}$	5V
Total Power Dissipation	$P_{tot}$	0.8W
Operating Junction and Storage Temperature Range	$T_j, T_{stg}$	-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>EB0</sub>	5			V	$I_E=0.1\text{mA}$ $I_C=0$
Collector Cutoff Current	I <sub>CB0</sub>			10	$\mu\text{A}$	$I_E=0$ $V_{CB}=25\text{V}$
Collector Cutoff Current	I <sub>CB0</sub>			1	mA	$I_B=0$ $V_{CB}=25\text{V}$ $T_A=150^\circ\text{C}$
Emitter Cutoff Current	I <sub>EB0</sub>			10	$\mu\text{A}$	$I_C=0$ $V_{EB}=5\text{V}$
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub> *			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	H <sub>FE</sub>	50				$I_C=5\text{mA}$ $V_{CE}=10\text{V}$
D.C. Current Gain	H <sub>FE</sub> *	85		375		$I_C=500\text{mA}$ $V_{CE}=1\text{V}$
D.C. Current Gain	H <sub>FE</sub> *	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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