

# SOT89 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

## BCX69

ISSUE 2 – FEBRUARY 1995

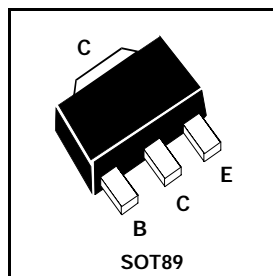


### FEATURES

- \* High gain and low saturation voltages

COMPLEMENTARY TYPE – BCX68

PARTMARKING DETAIL – BCX69 – CJ  
BCX69-16 – CG  
BCX69-25 – CH



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-25	V
Collector-Emitter Voltage	$V_{CEO}$	-20	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Peak Pulse Current	$I_{CM}$	-2	A
Continuous Collector Current	$I_C$	-1	A
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	1	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-65 to +150	$^{\circ}C$

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown voltage	$V_{(BR)CBO}$	-25			V	$I_C = -100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-20			V	$I_C = -10mA$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E = -100\mu A$
Collector Cut-Off Current	$I_{CBO}$			-0.1 -10	$\mu A$ $\mu A$	$V_{CB} = -25V$ $V_{CB} = -25V, T_{amb} = 150^{\circ}C$
Emitter Cut-Off Current	$I_{EBO}$			-10	$\mu A$	$V_{EB} = -5V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.5	V	$I_C = -1A, I_B = -100mA$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			-1.0	V	$I_C = -1A, V_{CE} = -1V$
Static Forward Current Transfer Ratio	$h_{FE}$	50 85 60 100 160	250	375 250 400		$I_C = -5mA, V_{CE} = -1V$ $I_C = -500mA, V_{CE} = -1V$ $I_C = -1A, V_{CE} = -1V^*$ $I_C = -500mA, V_{CE} = -1V^*$ $I_C = -500mA, V_{CE} = -1V$
Transition Frequency	$f_T$	100			MHz	$I_C = -100mA, V_{CE} = -5V,$ $f = 100MHz$
Output Capacitance	$C_{obo}$			25	pF	$V_{CB} = -10V, f = 1MHz$

\*Measured under pulsed conditions. Pulse width=300 $\mu s$ . Duty cycle  $\leq 2\%$   
For typical characteristics graphs see FMMT549 datasheet.