

# SOT89 PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

## BST16

ISSUE 3 – FEBRUARY 1996

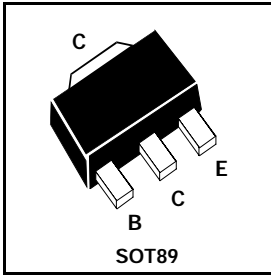


### FEATURES

- \* High  $V_{CE0}$
- \* Low saturation voltage

COMPLEMENTARY TYPE – BST39

PARTMARKING DETAIL – BT2



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-350	V
Collector-Emitter Voltage	$V_{CEO}$	-300	V
Emitter-Base Voltage	$V_{EBO}$	-4	V
Peak Pulse Current	$I_{CM}$	-1	A
Continuous Collector Current	$I_C$	-500	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	1	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-65 to +150	$^\circ\text{C}$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-350			V	$I_C = -100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-300			V	$I_C = -1\text{mA}$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-4			V	$I_E = -100\mu\text{A}$
Collector Cut-Off Current	$I_{CBO}$			-1	$\mu\text{A}$	$V_{CB} = -280\text{V}$
Collector Cut-Off Current	$I_{CEO}$			-50	$\mu\text{A}$	$V_{CB} = -250\text{V}$
Emitter Cut-Off Current	$I_{EBO}$			-20	$\mu\text{A}$	$V_{EB} = -4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			- 2.0 -0.5	V	$I_C = -50\text{mA}, I_B = -5\text{mA}^*$ $I_C = -30\text{mA}, I_B = -3\text{mA}^*$
Static Forward Current Transfer Ratio	$h_{FE}$	30		150		$I_C = -50\text{mA}, V_{CE} = -10\text{V}^*$
Transition Frequency	$f_T$	15			MHz	$I_C = -10\text{mA}, V_{CE} = -10\text{V}^*$ $f = 30\text{MHz}$
Output Capacitance	$C_{obo}$			15	pF	$V_{CB} = -10\text{V}, f = 1\text{MHz}$

\*Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$   
For typical characteristics graphs see FMMTA92 datasheet.