

SOT89 PNP SILICON PLANAR DARLINGTON TRANSISTOR

ISSUE 4 – MARCH 1996

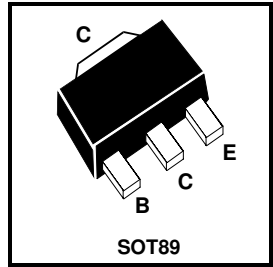


BST61

FEATURES

- * Fast Switching
- * High h_{FE}

PARTMAKING DETAIL — BS2



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-10	V
Pea Pulse Current	I_{CM}	-1.5	A
Continuous Collector Current	I_C	-500	mA
Base Current	I_B	-100	mA
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.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-80		V	$I_C=-10\mu A, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60		V	$I_C=-10mA, I_B=0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-10		V	$I_E=-10\mu A, I_C=0$
Emitter Cut-Off Current	I_{EBO}		-10	μA	$V_{EB}=-8V, I_E=0$
Collector-Emitter Cut-Off Current	I_{CES}		-10	μA	$V_{CE}=-60V, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-1.3 -1.3	V V	$I_C=500mA, I_B=-0.5mA$ $I_C=500mA, I_B=-0.5mA$ $T_j=150^{\circ}C$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1.9	V	$I_C=-500mA, I_B=-0.5mA$
Static Forward Current Transfer Ratio	h_{FE}	1K 2K			$I_C=-150mA, V_{CE}=-10V^*$ $I_C=-500mA, V_{CE}=-10V^*$
Turn On Time	t_{on}		400 Typical	ns	$I_C=500mA$
Turn Off Time	t_{off}		1.5K Typical	ns	$I_{Bon}=I_{Bof}=-0.5mA$

* Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$

For typical characteristics graphs see FZTA63 (SOT223) datasheet.