

**SOT89 NPN SILICON PLANAR
MEDIUM POWER TRANSISTOR**

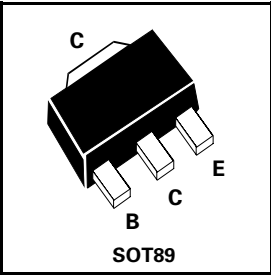
ISSUE 4 – MARCH 2001



BSR43

COMPLEMENTARY TYPES – BSR33

PARTMARKING DETAIL – AR4



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	90	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	5	V
Peak Pulse Current	I_{CM}	2	A
Continuous Collector Current	I_C	1	A
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	$V_{(BR)CBO}$	90		V	$I_C=100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	80		V	$I_C=10mA$ *
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5		V	$I_E=10\mu A$
Collector Cut-Off Current	I_{CBO}		100 50	nA μA	$V_{CB}=60V$ $V_{CB}=60V, T_{amb} = 125^{\circ}C$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.25 0.5	V V	$I_C = 150mA, I_B = 15mA$ $I_C = 500mA, I_B = 50mA$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		1.0 1.2	V V	$I_C = 150mA, I_B = 15mA$ $I_C = 500mA, I_B = 50mA$
Static Forward Current Transfer Ratio	h_{FE}	30 100 50	300		$I_C = 100\mu A, V_{CE} = 5V$ $I_C = 100mA, V_{CE} = 5V$ $I_C = 500mA, V_{CE} = 5V$
Output Capacitance	C_{obo}		12	pF	$V_{CB} = 10V, f = 1MHz$
Input Capacitance	C_{ibo}		90	pF	$V_{EB} = 0.5V, f = 1MHz$
Transition Frequency	f_T	100		MHz	$I_C=50mA, V_{CE}=10V$ $f = 35MHz$
Turn-On Time	T_{on}		250	ns	$V_{CC}=20V, I_C = 100mA$
Turn-Off Time	T_{off}		1000	ns	$I_{B1} = I_{B2} = 5mA$

*Measured under pulsed conditions.

For typical characteristics graphs see FMMT493 datasheet.





LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.