

SOT89 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

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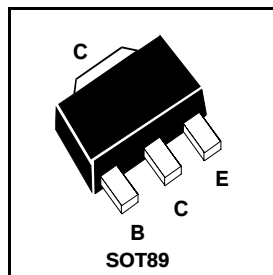
BC868

FEATURES

- * SUITABLE FOR GENERAL AF APPLICATIONS AND CLASS B AUDIO OUTPUT STAGES UPTO 3W
- * HIGH h_{FE} AND LOW SATURATION VOLTAGE

COMPLEMENTARY TYPE - BC869

PARTMARKING DETAILS- BC868 - CAC
BC868-16 - CCC
BC868-25 - CDC



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	$I_E=10\mu A$
Collector Cut-Off Current	I_{CBO}			10 1	μA mA	$V_{CB} = 25V$ $V_{CB} = 25V, T_{amb}=150^{\circ}C$
Emitter Cut-Off Current	I_{EBO}			10	μA	$V_{EB}=5V$
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		375 250 375		$I_C=5mA, V_{CE}=10V^*$ $I_C=500mA, V_{CE}=1V^*$ $I_C=1A, V_{CE}=1V^*$ $I_C=500mA, V_{CE}=1V^*$ $I_C=500mA, V_{CE}=1V^*$
Transition Frequency	f_T		60		MHz	$I_C=10mA, V_{CE}=5V$ $f = 35MHz$
Output Capacitance	C_{obo}		45		pF	$V_{CB}=10V, f=1MHz$

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$
For typical characteristics graphs see FMMT449 datasheet.