SOT89 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

BC868

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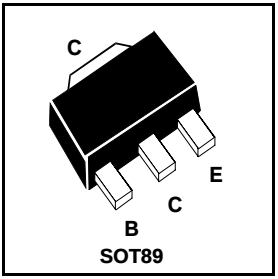
FEATURES

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



SOT89

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°C	P_{tot}	1	W
Operating and Storage Temperature Range	T_j:T_{stg}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	25			V	I_C=100μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	20			V	I_C=10mA*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	I_E=10μA
Collector Cut-Off Current	I_{CBO}			10 1	μA mA	V_{CB} = 25V V_{CB} = 25V,T_{amb} =150°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} BC868-16 BC868-25	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=300μs. Duty cycle ≤2%
For typical characteristics graphs see FMMT449 datasheet.