

SOT223 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

BCP69

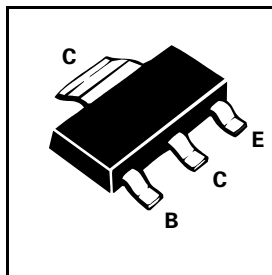
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FEATURES

- * For AF drivers and output stages
- * High collector current and Low $V_{CE(sat)}$

COMPLEMENTARY TYPE – BCP68

PARTMARKING DETAIL – BCP69
BCP69 – 25



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 $T_{amb}=25^\circ\text{C}$	P_{tot}	2	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 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	$V_{(BR)CBO}$	-25			V	$I_C = -10\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-20			V	$I_C = -30\text{mA}$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E = -10\mu\text{A}$
Collector Cut-Off Current	I_{CBO}			-100 -10	nA μA	$V_{CB} = -25\text{V}$ $V_{CB} = -25\text{V}$, $T_{amb} = 150^\circ\text{C}$
Emitter Cut-Off Current	I_{EBO}			-10	μA	$V_{EB} = -5\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.5	V	$I_C = -1\text{A}$, $I_B = -100\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-0.6	-1.0	V V	$I_C = -5\text{mA}$, $V_{CE} = -10\text{V}^*$ $I_C = -1\text{A}$, $V_{CE} = -1\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE} BCP69 BCP69-25	50 63 160	250	400 400		$I_C = -5\text{mA}$, $V_{CE} = -10\text{V}^*$ $I_C = -500\text{mA}$, $V_{CE} = -1\text{V}^*$ $I_C = -500\text{mA}$, $V_{CE} = -1\text{V}^*$
Transition Frequency	f_T		100		MHz	$I_C = -100\text{mA}$, $V_{CE} = -5\text{V}$, $f = 100\text{MHz}$

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$
For typical characteristics graphs see FMIMT549 datasheet.