

SOT89 PNP SILICON PLANAR DARLINGTON TRANSISTOR

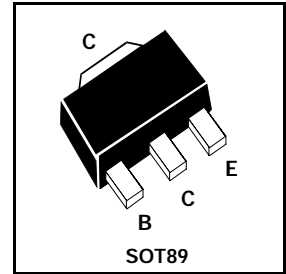
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BCV48

COMPLEMENTARY TYPE – BCV49

PARTMARKING DETAIL – EE



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
Peak Pulse Current	I_{CM}	-800	mA
Continuous Collector Current	I_C	-500	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}	1	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-65 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	$V_{(BR)CBO}$	-80			V	$I_C=-100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60			V	$I_C=-10\text{mA}^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-10			V	$I_E=-10\mu\text{A}$
Collector Cut-Off Current	I_{CBO}			-100 -10	nA μA	$V_{CB}=-60\text{V}$ $V_{CB}=-60\text{V}, T_{amb}=150^\circ\text{C}$
Emitter Cut-Off Current	I_{EBO}			-100	nA	$V_{EB}=-4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-1	V	$I_C=-100\text{mA}, I_B=0.1\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1.5	V	$I_C=-100\text{mA}, I_B=-0.1\text{mA}^*$
Static Forward Current Transfer Ratio	h_{FE}	2000 4000 10000 2000				$I_C=-100\mu\text{A}, V_{CE}=-1\text{V}\dagger$ $I_C=-10\text{mA}, V_{CE}=-5\text{V}^*$ $I_C=-100\text{mA}, V_{CE}=-5\text{V}^*$ $I_C=-500\text{mA}, V_{CE}=-5\text{V}^*$
Transition Frequency	f_T		200		MHz	$I_C=-50\text{mA}, V_{CE}=-5\text{V}$ $f = 20\text{MHz}$
Output Capacitance	C_{obo}		4.5		pF	$V_{CB}=-10\text{V}, f=1\text{MHz}$

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

\dagger Periodic Sample Test Only.