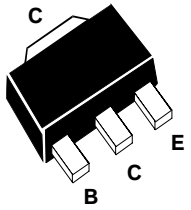
SOT89 PNP SILICON PLANAR DARLINGTON TRANSISTOR

ISSUE 3 – SEPTEMBER 1995 ✪

BCV48

COMPLEMENTARY TYPE – BCV49

PARTMARKING DETAIL – EE



SOT89

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°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	$V_{(BR)CBO}$	-80			V	I_C=-100μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60			V	I_C=-10mA*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-10			V	I_E=-10μA
Collector Cut-Off Current	I_{CBO}			-100 -10	nA μA	V_{CB}=-60V V_{CB}=-60V, T_{amb}=150°C
Emitter Cut-Off Current	I_{EBO}			-100	nA	V_{EB}=-4V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-1	V	I_C=-100mA, I_B-0.1mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1.5	V	I_C=-100mA, I_B=-0.1mA*
Static Forward Current Transfer Ratio	h_{FE}	2000 4000 10000 2000				I_C=-100μA, V_{CE}=-1V† I_C=-10mA, V_{CE}=-5V* I_C=-100mA, V_{CE}=-5V* I_C=-500mA, V_{CE}=-5V*
Transition Frequency	f_T		200		MHz	I_C=-50mA, V_{CE}=-5V f = 20MHz
Output Capacitance	C_{obo}		4.5		pF	V_{CB}=-10V, f=1MHz

*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤2%

† Periodic Sample Test Only.