

SOT223 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

BCP51

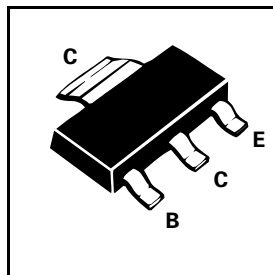
ISSUE 3 – AUGUST 1995

FEATURES

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

COMPLEMENTARY TYPE – BCP54

PARTMARKING DETAILS – BCP51
BCP51 – 10
BCP51 – 16



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-45	V
Collector-Emitter Voltage	V_{CEO}	-45	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-1.5	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	$V_{(BR)CBO}$	-45			V	$I_C = -100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-45			V	$I_C = -10\text{mA}^*$
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	$V_{CB} = -30\text{V}$ $V_{CB} = -30\text{V}, T_{amb} = 150^\circ\text{C}$
Emitter Cut-Off Current	I_{EBO}			-10	μA	$V_{EB} = -5\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.5	V	$I_C = -500\text{mA}, I_B = -50\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			-1.0	V	$I_C = -500\text{mA}, V_{CE} = -2\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	40 25 63 100	100 160	250 160 250		$I_C = -150\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -500\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -150\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -150\text{mA}, V_{CE} = -2\text{V}^*$
Transition Frequency	f_T		125		MHz	$I_C = -50\text{mA}, V_{CE} = -10\text{V}, f = 100\text{MHz}$

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



LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.