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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

# SOT223 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

## BCP54

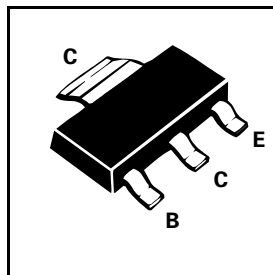
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### FEATURES

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

COMPLEMENTARY TYPE – BCP51

PARTMARKING DETAILS – BCP54  
BCP54 – 10  
BCP54 – 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 20	nA $\mu\text{A}$	$V_{CB}=30\text{V}$ $V_{CB}=30\text{V}, T_{amb}=150^\circ\text{C}$
Emitter Cut-Off Current	$I_{EBO}$			10	$\mu\text{A}$	$V_{EB}=5\text{V}$
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	$f_T$		100		MHZ	$I_C=50\text{mA}, V_{CE}=10\text{V}, f=100\text{MHZ}$

\*Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$