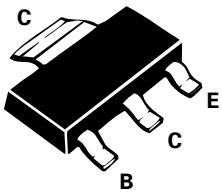
SOT223 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

BCP55

ISSUE 3 – AUGUST 1995 ✪

FEATURES

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



COMPLEMENTARY TYPE – BCP52

PARTMARKING DETAILS – BCP55
BCP55 – 10
BCP55 – 16

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	60	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°C	P_{tot}	2	W
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	60			V	I_C=100μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	60			V	I_C= 10mA *
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	I_E=10μA
Collector Cut-Off Current	I_{CBO}			100 20	nA μA	V_{CB}=30V V_{CB}=30V, T_{amb}=150°C
Emitter Cut-Off Current	I_{EBO}			10	μA	V_{EB}=5V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.5	V	I_C=500mA, I_B=50mA*
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			1.0	V	I_C=500mA, V_{CE}=2V*
Static Forward Current Transfer Ratio	h_{FE} BCP55-10 BCP55-16	40 25 63 100	 100 160	250 160 250		I_C=150mA, V_{CE}=2V* I_C=500mA, V_{CE}=2V* I_C=150mA, V_{CE}=2V* I_C=150mA, V_{CE}=2V*
Transition Frequency	f_T		100		MHz	I_C=50mA, V_{CE}=10V, f=100MHz

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

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