SOT223 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

BCP53

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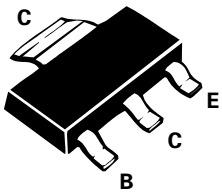
FEATURES

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



COMPLEMENTARY TYPE – BCP56

PARTMARKING DETAILS – BCP53
BCP53 – 10
BCP53 – 16

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-100	V
Collector-Emitter Voltage	V_{CEO}	-80	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	$V_{(BR)CBO}$	-100			V	I_C=-100μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-80			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} BCP53-10 BCP53-16	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		125		MHz	I_C=-50mA, V_{CE}=-10V, f=100MHz

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