NPN SILICON PLANAR HIGH VOLTAGE TRANSISTOR

MPSA44

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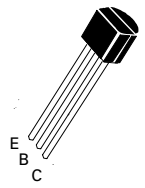
FEATURES

* High voltage

APPLICATIONS

* Telephone dialler circuit



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ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	400	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	6	V
Continuous Collector Current	I_C	300	mA
Power Dissipation at T_{amb}=25°C	P_{tot}	625	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	400			V	I_C=100μA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	400			V	I_C=1mA, I_B=0*
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	400			V	IC=100μA, I_E=0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6			V	I_E=10μA, I_C=0
Collector Cut-Off Current	I_{CBO}			0.1	μA	V_{CB}=400V, I_E=0
Collector Cut-Off Current	I_{CES}			500	nA	VCE=400V
Emitter Cut-Off Current	I_{EBO}			0.1	μA	V_{EB}=4V, I_C=0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.4 0.5 0.75	V	I_C=1mA, I_B=0.1mA* I_C=10mA, I_B=1mA* I_C=50mA, I_B=5mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			0.75	V	I_C=10mA, I_B=1mA*
Static Forward Current Transfer Ratio	h_{FE}	40 50 45 40		300		I_C=1mA, V_{CE}=10V* I_C=10mA, V_{CE}=10V* I_C=50mA, V_{CE}=10V* I_C=100mA, V_{CE}=10V*

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