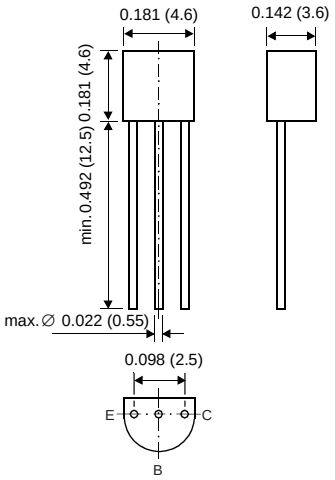
MPSA06

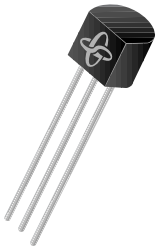
Small Signal Transistors (NPN)

TO-92



Dimensions in inches and (millimeters)

FEATURES



- NPN Silicon Epitaxial Planar Transistor for switching and amplifier applications.
- As complementary type, the PNP transistor MPSA56 is recommended.
- On special request, this transistor is also manufactured in the pin configuration TO-18.
- This transistor is also available in the SOT-23 case with the type designation MMBTA06

MECHANICAL DATA

Case: TO-92 Plastic Package
Weight: approx. 0.18g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

	SYMBOL	*VALUE*	*UNIT*
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	4.0	V
Collector Current	I_C	500	mA
Power Dissipation at T_A = 25 °C at T_C = 25 °C	P_{tot}	625 1.5	mW W
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	200(1)	K/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	–65 to +150	°C

1) Valid provided that leads are kept at ambient temperature

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ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

	SYMBOL	*MIN.*	*.MAX.*	*UNIT*
Collector-Emitter Breakdown Voltage at I_C = 1 mA, I_B = 0	$V_{(BR)CEO}$	80	–	V
Emitter-Base Breakdown Voltage at I_E = 100 µA, I_C = 0	$V_{(BR)EBO}$	4.0	–	V
Collector-Emitter Cutoff Current V_{CE} = 60 V, I_B = 0	I_{CES}	–	100	nA
Collector-Base Cutoff Current V_{CB} = 80 V, I_E = 0	I_{CBO}	–	100	nA
Collector Saturation Voltage at I_C = 100 mA, I_B = 10 mA	V_{CEsat}	–	0.25	V
Base-Emitter On Voltage at I_C = 10 mA, I_B = 1 mA	$V_{BE(on)}$	–	1.2	V
DC Current Gain at V_{CE} = 1 V, I_C = 10 mA at V_{CE} = 1 V, I_C = 100 mA	 h_{FE} h_{FE}	 100 100	 – –	 – –
Gain-Bandwidth Product at V_{CE} = 2.0 V, I_C = 10 mA, f = 100 MHz	f_T	100	–	MHz

[1] Valid provided that leads are kept at ambient temperature