

## TO-92 Plastic-Encapsulate Transistors

### **MPSA06**

TRANSISTOR (NPN)

#### **FEATURES**

- Power amplifier

#### **MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ unless otherwise noted)**

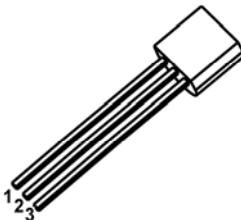
Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	80	V
$V_{CEO}$	Collector-Emitter Voltage	80	V
$V_{EBO}$	Emitter-Base Voltage	4	V
$I_c$	Collector Current -Continuous	0.5	A
$P_c$	Collector Power Dissipation	625	mW
$T_J$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature	-55-150	°C
$R_{\theta JA}$	Thermal Resistance,Junction to Ambient	200	°C/W

#### **TO-92**

1. Emitter

2. Base

3. Collector



#### **ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	80		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C= 1\text{mA}, I_B=0$	80		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	4		V
Collector cut-off current	$I_{CBO}$	$V_{CB}=80\text{V}, I_E=0$		0.1	$\mu\text{A}$
Collector cut-off current	$I_{CEO}$	$V_{CE}=60\text{V}, I_B=0$		0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=3\text{V}, I_C=0$		0.1	$\mu\text{A}$
DC current gain	$h_{FE1}$	$V_{CE}=1\text{V}, I_C= 100\text{mA}$	100	400	
	$h_{FE2}$	$V_{CE}=1\text{V}, I_C= 10\text{mA}$	100		
Collector-emitter saturation voltage	$V_{CE(\text{sat})}$	$I_C=100\text{mA}, I_B=10\text{mA}$		0.25	V
Base-emitter saturation voltage	$V_{BE(\text{sat})}$	$I_C= 100\text{mA}, I_B=10\text{mA}$		1.2	V
Transition frequency	$f_T$	$V_{CE}=2\text{V}, I_C= 10\text{mA}$ $f = 100\text{MHz}$	100		MHz