TO-92 Plastic-Encapsulate Transistors
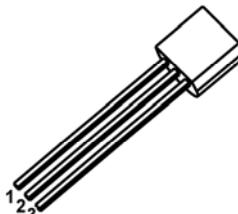
MPSA27 TRANSISTOR (NPN)

TO – 92

1.EMITTER

2.BASE

3.COLLECTOR

FEATURES

- High Current
- Low Voltage
- High DC Current Gain

MAXIMUM RATINGS (T$_a$=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V$_{CBO}$	Collector-Base Voltage	60	V
V$_{CES}$	Collector-Emitter Voltage	60	V
V$_{EBO}$	Emitter-Base Voltage	10	V
I$_C$	Collector Current	0.8	A
P$_C$	Collector Power Dissipation	625	mW
R$_{\theta JA}$	Thermal Resistance From Junction To Ambient	200	℃/W
T$_j$	Junction Temperature	150	℃
T$_{stg}$	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T$_a$=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V$_{(BR)CBO}$	I$_C$= 0.01mA,I$_E$=0	60			V
Collector-emitter breakdown voltage	V$_{(BR)CES}$	I$_C$=0.1mA,V$_{BE}$=0	60			V
Emitter-base breakdown voltage	V$_{(BR)EBO}$	I$_E$=0.1mA,I$_C$=0	10			V
Collector cut-off current	I$_{CBO}$	V$_{CB}$=50V,I$_E$=0			0.1	μA
Collector cut-off current	I$_{CES}$	V$_{CE}$=50V,I$_E$=0			0.5	μA
Emitter cut-off current	I$_{EBO}$	V$_{EB}$=10V,I$_C$=0			0.1	μA
DC current gain	h$_{FE(1)}$[*]	V$_{CE}$=5V, I$_C$=10mA	10000			
	h$_{FE(2)}$[*]	V$_{CE}$=5V, I$_C$=100mA	10000			
Collector-emitter saturation voltage	V$_{CE(sat)}$[*]	I$_C$=100mA,I$_B$=0.1mA			1.5	V
Base-emitter voltage	V$_{BE}$[*]	V$_{CE}$=5V,I$_C$=100mA			2.0	V
Transition frequency	f$_T$	V$_{CE}$=5V,I$_C$=10mA,f=100MHz	125			MHz

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.