

TO-92 Plastic-Encapsulate Transistors

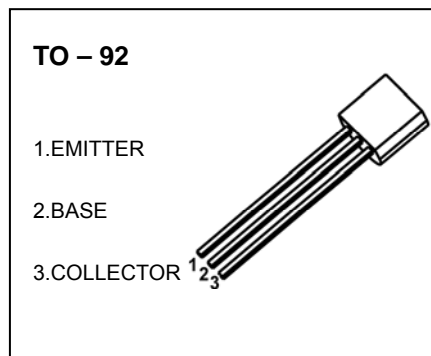
MPSA13 TRANSISTOR (NPN)

FEATURES

- Darlington Transistors

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	30	V
V _{CEO}	Collector-Emitter Voltage	30	V
V _{EBO}	Emitter-Base Voltage	10	V
I _C	Collector Current	0.5	A
P _C	Collector Power Dissipation	625	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	200	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 0.1mA, I _E =0	30			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	30			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} =30V, I _E =0			0.1	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	5000			
	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
Current gain-bandwidth product	f _T	V _{CE} =5V, I _C =10mA, f=100MHz	125			MHz

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

