

TO-92 Plastic-Encapsulate Transistors

MPSH10/MPSH11 TRANSISTOR (NPN)

FEATURES

- General Purpose Amplifier

APPLICATIONS

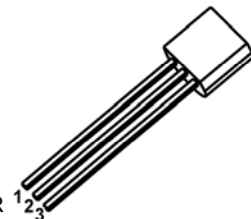
- In Low Noise UHF/VHF Amplifiers
- In Low Frequency Drift, High Output UHF Oscillators

TO - 92

1.BASE

2.EMITTER

3.COLLECTOR



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

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	30	V
V _{CEO}	Collector-Emitter Voltage	25	V
V _{EBO}	Emitter-Base Voltage	3	V
I _C	Collector Current	40	mA
P _C	Collector Power Dissipation	350	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	357	°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	25			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =0.01mA, I _C =0	3			V
Collector cut-off current	I _{CBO}	V _{CB} =25V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =2V, I _C =0			0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =10V, I _C =4mA	60			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =4mA, I _B =0.4mA			0.5	V
Base-emitter voltage	V _{BE}	I _C =4mA, V _{CE} =10V			0.95	V
Transition frequency	f _T	V _{CE} =10V, I _C =4mA, f=100MHz	650			MHz
Collector output capacitance	C _{cb}	V _{CB} =10V, I _E =0, f=1MHz			0.7	pF