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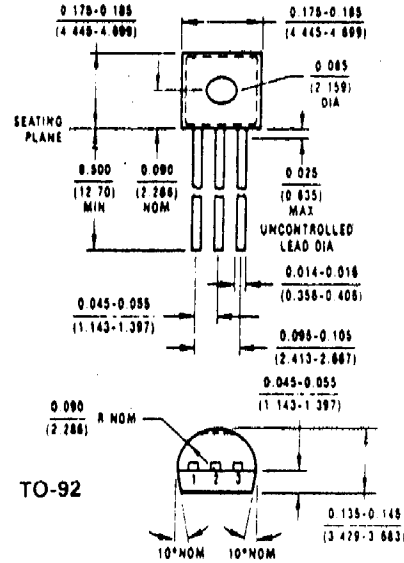
PNP
MPS8598

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V _{CEO}	60	Vdc
Collector-Base Voltage	V _{CBQ}	60	Vdc
Emitter-Base Voltage	V _{EBO}	5.0	Vdc
Collector Current — Continuous	I _C	500	mA _{dc}
Total Device Dissipation — T _A = 25°C	P _D	625	mW
Derate above 25°C		5.0	mW/°C
Total Device Dissipation — T _C = 25°C	P _D	1.5	Watts
Derate above 25°C		12	mW/°C
Operating Storage Junction Temperature Range	T _J , T _{stg}	-55 to +150	°C

THERMAL CHARACTERISTICS

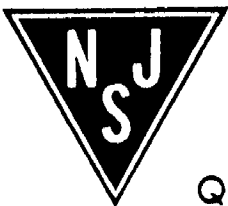
Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Ambient	R _{θJA}	200	°C/W
Thermal Resistance, Junction to Case	R _{θJC}	83.3	°C/W



ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage(1) (I _C = 10 mA _{dc} , I _B = 0)	V _{(BR)CEO}	60	—	Vdc
Collector-Base Breakdown Voltage (I _C = 100 μA _{dc} , I _E = 0)	V _{(BR)CBO}	60	—	Vdc
Emitter-Base Breakdown Voltage (I _E = 10 μA _{dc} , I _C = 0)	V _{(BR)EBO}	6.0	—	Vdc
Collector Cutoff Current (V _{CE} = 60 Vdc, I _B = 0)	I _C CEO	—	0.1	μA _{dc}
Collector Cutoff Current (V _{CB} = 60 Vdc, I _E = 0)	I _C CBO	—	0.1	μA _{dc}
Emitter Cutoff Current (V _{EB} = 5.0 Vdc, I _C = 0)	I _E EBO	—	0.1	μA _{dc}
ON CHARACTERISTICS(1)				
DC Current Gain (I _C = 1.0 mA _{dc} , V _{CE} = 5.0 Vdc) (I _C = 10 mA _{dc} , V _{CE} = 5.0 Vdc) (I _C = 100 mA _{dc} , V _{CE} = 5.0 Vdc)	h _{FE}	100 100 75	300 — —	—
Collector-Emitter Saturation Voltage (I _C = 100 mA _{dc} , I _B = 5.0 mA _{dc}) (I _C = 100 mA _{dc} , I _B = 10 mA _{dc})	V _{CE(sat)}	—	0.4 0.3	Vdc
Base-Emitter On Voltage (I _C = 10 mA _{dc} , V _{CE} = 5.0 Vdc)	V _{BE(on)}	0.6	0.8	Vdc
SMALL-SIGNAL CHARACTERISTICS				
Current Gain — Bandwidth Product (I _C = 10 mA _{dc} , V _{CE} = 5.0 Vdc, f = 100 MHz)	f _T	150	—	MHz
Output Capacitance (V _{CB} = 5.0 Vdc, I _E = 0, f = 1.0 MHz)	C _{obo}	—	8.0	pF
Input Capacitance (V _{EB} = 0.5 Vdc, I _C = 0, f = 1.0 MHz)	C _{ibo}	—	30	pF

(1) Pulse Test: Pulse Width < 300 μs, Duty Cycle = 2.0%
(2) Voltage and Current are negative for PNP Transistors.



Quality Semi-Conductors