

MAXIMUM RATINGS

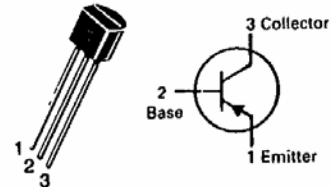
Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V _{CEO}	25	Vdc
Collector-Base Voltage	V _{CBO}	25	Vdc
Collector Current — Continuous	I _C	600	mAdc
Total Device Dissipation @ T _A = 25°C Derate above 25°C	P _D	625 5.0	mW mW/°C
Total Device Dissipation @ T _C = 25°C Derate above 25°C	P _D	1.5 12	Watts mW/°C
Operating and Storage Junction Temperature Range	T _J , T _{stg}	- 65 to +150	°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	R _{θJC}	83.3	°C/W
Thermal Resistance, Junction to Ambient(1)	R _{θJA}	200	°C/W

MP5D55

**CASE 29-04, STYLE 1
TO-92 (TO-226AA)**



**AMPLIFIER TRANSISTOR
PNP SILICON**

Refer to 2N4400 for MP5D05 graphs.*

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

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage (I _C = 1.0 mAdc, I _B = 0)	V _{(BR)CEO}	25	—	Vdc
Collector-Base Breakdown Voltage (I _C = 10 μAdc, I _E = 0)	V _{(BR)CBO}	25	—	Vdc
Collector Cutoff Current (V _{CE} = 20 Vdc)	I _{CEO}	—	1.0	μAdc
Collector Cutoff Current (V _{CB} = 20 Vdc, I _E = 0)	I _{CBO}	—	1.0	μAdc
Emitter Cutoff Current (V _{EB} = 3.0 Vdc, I _C = 0)	I _{EBO}	—	100	nAdc
ON CHARACTERISTICS(2)				
DC Current Gain (I _C = 50 mAdc, V _{CE} = 5.0 Vdc) (I _C = 100 mAdc, V _{CE} = 5.0 Vdc) (I _C = 500 mAdc, V _{CE} = 5.0 Vdc)	h _{FE}	50 80 30	—	—
Collector-Emitter Saturation Voltage (I _C = 100 mAdc, I _B = 10 mAdc)	V _{CE(sat)}	—	0.5	Vdc
SMALL-SIGNAL CHARACTERISTICS				
Current-Gain — Bandwidth Product (I _C = 50 mAdc, V _{CE} = 10 Vdc, f = 100 MHz)	f _T	100	—	MHz

(1) R_{θJA} is measured with the device soldered into a typical printed circuit board.

(2) Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 2.0%.

*Refer to 2N4402 for MP5D55 graphs.