

MAXIMUM RATINGS

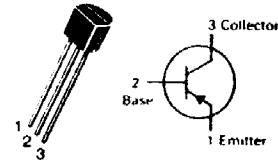
Rating	Symbol	2N5400	2N5401	Unit
Collector-Emitter Voltage	V _{CEO}	120	150	Vdc
Collector-Base Voltage	V _{CBO}	130	160	Vdc
Emitter-Base Voltage	V _{EBO}	5.0		Vdc
Collector Current — Continuous	I _C	600		mAdc
Total Device Dissipation (at T _A = 25°C Derate above 25°C)	P _D	625	5.0	mW mW/°C
Total Device Dissipation (at T _C = 25°C Derate above 25°C)	P _D	1.5	12.0	Watt mW/°C
Operating and Storage Junction Temperature Range	T _J , T _{stg}	- 55 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	R _{θJA}	200	°C/W

**2N5400
2N5401**

TO-92



AMPLIFIER TRANSISTOR

PNP SILICON

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

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage(1) (I _C = 1.0 mAdc, I _B = 0)	V _{(BR)CEO}	120 150	—	Vdc
Collector-Base Breakdown Voltage (I _C = 100 μAdc, I _E = 0)	V _{(BR)CBO}	130 160	—	Vdc
Emitter-Base Breakdown Voltage (I _E = 10 μAdc, I _C = 0)	V _{(BR)EBO}	5.0	—	Vdc
Collector Cutoff Current (V _{CB} = 100 Vdc, I _E = 0)	I _{CBO}	—	100	nAdc
(V _{CB} = 120 Vdc, I _E = 0)		—	50	
(V _{CB} = 100 Vdc, I _E = 0, T _A = 100°C)		—	100	μAdc
(V _{CB} = 120 Vdc, I _E = 0, T _A = 100°C)		—	50	
Emitter Cutoff Current (V _{EB} = 3.0 Vdc, I _C = 0)	I _{EBO}	—	50	nAdc
ON CHARACTERISTICS(1)				
DC Current Gain (I _C = 1.0 mAdc, V _{CE} = 5.0 Vdc)	h _{FE}	30 50	—	—
(I _C = 10 mAdc, V _{CE} = 5.0 Vdc)		40 60	180 240	
(I _C = 50 mAdc, V _{CE} = 5.0 Vdc)		40 50	—	
Collector-Emitter Saturation Voltage (I _C = 10 mAdc, I _B = 1.0 mAdc)	V _{CE(sat)}	—	0.20	Vdc
(I _C = 50 mAdc, I _B = 5.0 mAdc)		—	0.5	
Base-Emitter Saturation Voltage (I _C = 10 mAdc, I _B = 1.0 mAdc)	V _{BE(sat)}	—	1.0	Vdc
(I _C = 50 mAdc, I _B = 5.0 mAdc)		—	1.0	
SMALL-SIGNAL CHARACTERISTICS				
Current-Gain — Bandwidth Product (I _C = 10 mAdc, V _{CE} = 10 Vdc, f = 100 Mhz)	f _T	100 100	400 300	Mhz
Output Capacitance (V _{CB} = 10 Vdc, I _E = 0, f = 1.0 Mhz)	C _{obo}	—	6.0	pF

