2N996 (SILICON)

PNP SILICON ANNULAR TRANSISTOR

. . . designed for general-purpose amplifier applications.

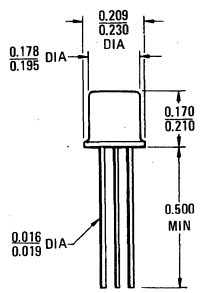
- Collector-Emitter Sustaining Voltage —
  $V_{CEO(sus)}$ = 12 Vdc (Min) @ I_C = 10 mAdc
- Collector-Base Breakdown Voltage —
  BV_{CBO} = 15 Vdc (Min) @ I_C = 10 μAdc
- Emitter-Base Breakdown Voltage —
  BV_{EBO} = 4.0 Vdc (Min) @ I_E = 10 μAdc

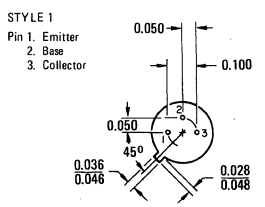
PNP SILICON TRANSISTOR

***MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	12	Vdc
Collector-Base Voltage	V_{CB}	15	Vdc
Emitter-Base Voltage	V_{EB}	4.0	Vdc
Collector Current	I_C	200	mAdc
Total Device Dissipation @ T_A = 25°C Derate above 25°C	P_D	360 2.06	mW mW/°C
Total Device Dissipation @ T_C = 25°C Derate above 25°C	P_D	1.2 6.86	Watts mW/°C
Operating and Storage Junction Temperature Range	T_J,T_{stg}	-65 to +200	°C

*Indicates JEDEC Registered Data.





Collector Connected to Case
CASE 22(1)
(TO-18)

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

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Sustaining Voltage(1) (I_C = 10 mAdc, I_B = 0)	$V_{CEO(sus)}$	12	–	Vdc
Collector-Base Breakdown Voltage (I_C = 10 μAdc, I_E = 0)	BV_{CBO}	15	–	Vdc
Emitter-Base Breakdown Voltage (I_E = 10 μAdc, I_C = 0)	BV_{EBO}	4.0	–	Vdc
Collector Cutoff Current	I_{CBO}			
(V_{CB} = 10 Vdc, I_E = 0)		–	0.005	μAdc
(V_{CB} = 10 Vdc, I_E = 0, T_A = 150°C)		–	15	μAdc
Emitter Cutoff Current (V_{BE} = 4.0 Vdc, I_C = 0)	I_{EBO}	–	10	μAdc
ON CHARACTERISTICS				
DC Current Gain (I_C = 20 mAdc, V_{CE} = 1.0 Vdc)	h_{FE}	35	–	–
Collector-Emitter Saturation Voltage (I_C = 60 mAdc, I_B = 2.0 mAdc)	$V_{CE(sat)}$	–	0.3	Vdc
Base-Emitter Saturation Voltage (I_C = 20 mAdc, I_B = 2.0 mAdc)	$V_{BE(sat)}$	–	0.95	Vdc
DYNAMIC CHARACTERISTICS				
Current-Gain—Bandwidth Product(2) (I_C = 10 mAdc, V_{CE} = 10 Vdc, f = 100 MHz)	f_T	100	–	MHz
Output Capacitance (V_{CB} = 10 Vdc, I_E = 0, f = 100 kHz to 1.0 MHz)	C_{ob}	–	10	pF

*Indicates JEDEC Registered Data.

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

(2)f_T is defined as the frequency at which $|h_{fe}|$ extrapolates to unity.