

MAXIMUM RATINGS

Rating	Symbol	2N4026/28	2N4027/29	Unit
		2N4030/32	2N4031/33	
Collector-Emitter Voltage(1)	V _{CEO}	60	80	V _{dc}
Collector-Base Voltage	V _{CBO}	60	80	V _{dc}
Emitter-Base Voltage	V _{EBO}	5.0	5.0	V _{dc}
Collector Current — Continuous	I _C	2N4026-2N4029	2N4030-2N4033	A _{dc}
		1.0	1.0	
Total Device Dissipation @ T _A = 25°C Derate above 25°C	P _D	.5 2.85	1.25 7.15	W mW/°C
Total Device Dissipation @ T _C = 25°C Derate above 25°C	P _D	2.0 11.4	7.0 40	W mW/°C
Operating and Storage Junction Temperature Range	T _J , T _{stg}	-65 to +200		°C
Lead or Terminal Temperature(2)	T _L	+300		°C

(1) Applicable 0 to 10 mA

(2) Measured at a distance not less than 1/16" from seated surface (or case) for 60 Sec.

THERMAL CHARACTERISTICS

Characteristic	Symbol	TO-18	TO-39	Unit
Thermal Resistance, Junction to Case	R _{θJC}	40	20	°C/W
Thermal Resistance, Junction to Ambient	R _{θJA}	280	140	°C/W

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

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage (I _C = 10 mA)	V _{(BR)CEO}	60 80	— —	V
Collector-Base Breakdown Voltage (I _C = 10 μA)	V _{(BR)CBO}	60 80	— —	V
Emitter-Base Breakdown Voltage (I _E = 10 μA)	V _{(BR)EBO}	5.0	—	V
Collector Cutoff Current (V _{CB} = 50 V) (V _{CB} = 60 V) (V _{CB} = 50 V, T _A = 150°C) (V _{CB} = 60 V, T _A = 150°C)	I _{CBO}	— — — —	50 50 50 50	nA μA
Emitter Cutoff Current (V _{EB} = 5.0 V)	I _{EBO}	—	10	μA

ON CHARACTERISTICS

DC Current Gain	h _{FE}	Min	Max	Unit
(I _C = 100 mA, V _{CE} = 5.0 V, @ -55°C)		15 40	— —	—
(I _C = 100 μA, V _{CE} = 5.0 V)		30 75	— —	—
(I _C = 100 mA, V _{CE} = 5.0 V)		40 100	120 300	—
(I _C = 500 mA, V _{CE} = 5.0 V)		25 70	— —	—
(I _C = 1.0 A, V _{CE} = 5.0 V)		15 10	— —	—
(I _C = 1.0 A, V _{CE} = 5.0 V)		40 25	— —	—

2N4026 thru 2N4033

**2N4026-2N4029
CASE 22-03, STYLE 1
TO-18 (TO-206AA)**

**JAN, JTX, TXV AVAILABLE IN
2N4033
2N4030-2N4033
CASE 79-02, STYLE 1
TO-39 (TO-205AD)**

**GENERAL PURPOSE
TRANSISTOR**

PNP SILICON

Refer to 2N4405 for graphs.

2N4026 thru 2N4033

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

Characteristic	Symbol	Min	Max	Unit
Collector-Emitter Saturation Voltage (I _C = 150 mA, I _B = 15 mA) (I _C = 500 mA, I _B = 50 mA) (I _C = 1.0 A, I _B = 100 mA)	V _{CE(sat)}	—	0.15 0.15 1.0	V
Base-Emitter Saturation Voltage (I _C = 150 mA, I _B = 15 mA)	V _{BE(sat)}	—	0.9	V
Base-Emitter On Voltage (I _C = 1.0 A, V _{CE} = 1.0 V) (I _C = 500 mA, V _{CE} = 0.5 V)	V _{BE(on)}	—	1.2 1.1	V

SMALL-SIGNAL CHARACTERISTICS

Output Capacitance (V _{CE} = 10 V, f = 1.0 MHz)	C _{obo}	—	20	pF
Input Capacitance (V _{EB} = 0.5 V, f = 1.0 MHz)	C _{iibo}	—	110	pF
Small Signal Current Gain (I _C = 50 mA, V _{CE} = 10 V, f = 100 MHz)	h _{fe}	1.0	4.0	—

SWITCHING CHARACTERISTICS

Storage Time (I _C = 500 mA, I _{B1} = I _{B2} = 50 mA)	t _s	—	350	ns
Turn-On Time (I _C = 500 mA, I _{B1} = 50 mA)	t _{on}	—	100	ns
Turn-Off Time (I _C = 500 mA, I _{B1} = I _{B2} = 50 mA)	t _{off}	—	50	ns

(3) Pulse Width = 300 μs, Duty Cycle 1.0%.