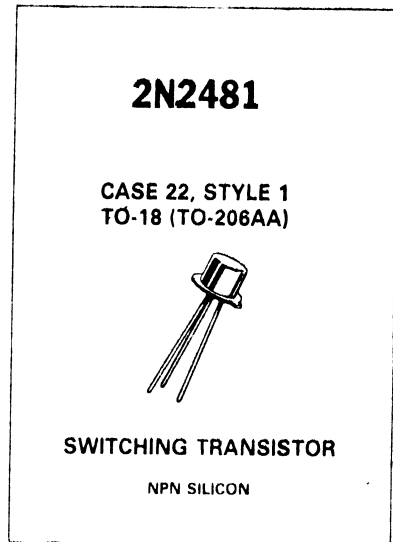


New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
 SPRINGFIELD, NEW JERSEY 07081
 U.S.A.

TELEPHONE: (201) 376-2922
 (212) 227-6005
 FAX: (201) 376-8960

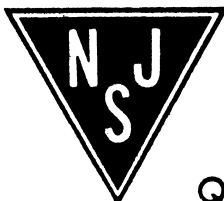


MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V _{CEO}	15	V _{dc}
Collector-Base Voltage	V _{CBO}	40	V _{dc}
Emitter-Base Voltage	V _{EBO}	5.0	V _{dc}
Total Device Dissipation (at T _A = 25°C) Derate above 25°C	P _D	0.36 2.06	Watt mW/°C
Total Device Dissipation (at T _C = 25°C) Derate above 25°C	P _D	1.2 6.9	Watts
Operating and Storage Junction Temperature Range	T _J , T _{stg}	-65 to +200	°C

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

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage (I _C = 30 mA, I _B = 0)	V _{(BR)CEO}	15	—	V _{dc}
Collector-Emitter Breakdown Voltage (I _C = 1.0 μA, V _{BE} = 0)	V _{(BR)CES}	30	—	V _{dc}
Collector-Base Breakdown Voltage (I _C = 10 μA, I _E = 0)	V _{(BR)CBO}	40	—	V _{dc}
Emitter-Base Breakdown Voltage (I _E = 100 μA, I _C = 0)	V _{(BR)EBO}	5.0	—	V _{dc}
Collector Cutoff Current (V _{CE} = 20 V, V _{BE} = 3.0 V) (V _{CE} = 20 V, V _{BE} = 3.0 V, T _A = 150°C)	I _{CEX}	—	0.05 15	μA
Emitter Cutoff Current (V _{EB} = 4.0 V, I _C = 0)	I _{EBO}	—	100	nA
Base Cutoff Current (V _{CE} = 20 V, V _{BE} = 3.0 V)	I _{BL}	—	50	nA
ON CHARACTERISTICS				
DC Current Gain (I _C = 1.0 mA, V _{CE} = 1.0 V) (I _C = 10 mA, V _{CE} = 1.0 V) (I _C = 10 mA, V _{CE} = 1.0 V, T _A = -55°C)(1) (I _C = 150 mA, V _{CE} = 1.0 V)(1)	h _{FE}	25 40 20 20	— 120 — —	—
Collector-Emitter Saturation Voltage (I _C = 10 mA, I _B = 1.0 mA) (I _C = 100 mA, I _B = 10 mA)(1)	V _{CE(sat)}	—	0.25 0.40	V _{dc}
Base-Emitter Saturation Voltage (I _C = 10 mA, I _B = 1.0 mA) (I _C = 100 mA, I _B = 10 mA)(1)	V _{BE(sat)}	0.7	0.82 1.25	V _{dc}
SMALL-SIGNAL CHARACTERISTICS				
Output Capacitance (V _{CB} = 5.0 V, I _C = 0, f = 1.0 MHz)	C _{ob}	—	5.0	pF
Input Capacitance (V _{EB} = 0.5 V, f = 1.0 MHz)	C _{ib}	—	7.0	pF
Small-Signal Current Gain (V _{CE} = 10 V, I _C = 10 mA, f = 100 MHz)	h _{fe}	30	—	—
Real Part of Input Impedance (I _C = 10 mA, V _{CE} = 10 V, f = 250 MHz)	Re{Z _{ib} }	—	50	Ohms



Quality Semi-Conductors