New Jersey Semi-Conductor Products, Inc.

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

TELEPHONE: (201) 376-2922
(212) 227-6005
TELEX: 13-8720

SILICON INTERMEDIATE POWER TRANSISTORS
TYPES 2N1047A, 2N1048A, 2N1049A, 2N1050A

INTERMEDIATE POWER SILICON TRANSISTORS

These diffused-junction, NPN intermediate power transistors are designed for power-switching and amplifier applications operating in the temperature range of −65°C to +200°C.

High reliability is assured by rigid production and quality control to insure electrical and mechanical stability.

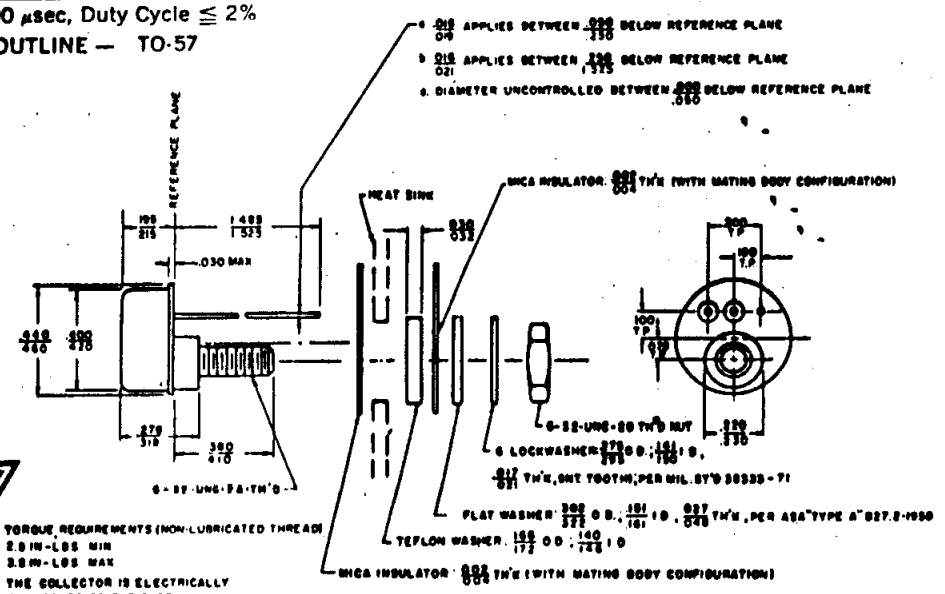
ABSOLUTE MAXIMUM RATINGS:	2N1047A 2N1049A	2N1048A 2N1050A	UNIT
Collector Base Voltage	80	120	Volts
Collector Emitter Voltage	80	120	Volts
Emitter Base Voltage	10	10	Volts
Power Dissipation: At Case Temperature of 25°C	40	40	Watts
At Ambient Temperature of 25°C	1	1	Watts
Junction Temperature Range			−65 to +200°C

ELECTRICAL CHARACTERISTICS
(25°C Case Temperature Except Where Otherwise Noted)

CHARACTERISTIC	TEST CONDITIONS	2N1047A MIN	2N1047A MAX.	2N1048A MIN.	2N1048A MAX	2N1049A MIN.	2N1049A MAX.	.2N1050A MIN.	.2N1050A MAX.	UNIT
Breakdown Voltage, BV_{CEO}	*I_C=30mA	80		120		80		120		volts
Breakdown Voltage, BV_{EBO}	I_E=250μA	10		10		10		10		volts
Collector Leakage Current, I_{CBO}	V_{CB}=30V		15		15		15		15	μA
	V_{CB}=80V		350				350			μA
	V_{CB}=120V				350				350	μA
	V_{CB}=30V, T=150°C		350		350		350		350	μA
Collector Leakage Current I_{CEX}	V_{CE}=80V, V_{BE}=−1.5V		250				250			μA
	V_{CE}=120V, V_{BE}=−1.5V				250				250	μA
Saturation Voltage, V_{CE}	*I_C=500mA, I_B=100mA		7.5		7.5		7.5		7.5	volts
Current Gain h_{FE}	*I_C=500mA, V_{CE}=10V	12	36	12	36	30	90	30	90	
Current Gain h_{FE}	*I_C=500mA, V_{CE}=10V, T=−55°C	8		8		20		20		
Input Voltage V_{BE}	I_C=500mA, V_{CE}=10V		6		6		6		6	volts

*Pulse width=300 μsec, Duty Cycle ≦ 2%

DIMENSIONAL OUTLINE — TO-57



TORQUE REQUIREMENTS (NON-LUBRICATED THREADS)
2.0 IN-LBS MIN
3.0 IN-LBS MAX

THE COLLECTOR IS ELECTRICALLY CONNECTED TO THE CASE

Quality Semi-Conductors