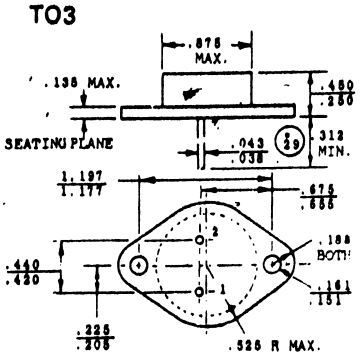
New Jersey Semi-Conductor Products, Inc.

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

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

2N1651
2N1652
2N1653

TO3



The 2N1651, 2N1652, and 2N1653 DAP transistors are designed for efficient high current switching at high frequencies. The diffused base gives very low input resistance and high cutoff frequency while still maintaining high breakdown voltage. The low input resistance gives better circuit stabilization at high temperatures and greatly increases the maximum available power gain. These transistors are capable of switching up to 1600 watts.

The diffused base alloy power transistors feature welded construction with a vacuum-tight seal to insure long life and stable operation.

Absolute Maximum Ratings:

	V_{CE} Vdc	V_{CB} Vdc	V_{EB} ** Vdc	I_C Adc	P_C * W	T_{stg} °C	T_j °C
2N1651	60	60	2.0	25	100	-60 to +110	110
2N1652	100	100	See				
2N1653	120	120	Page 4				

*P_C is the maximum average power dissipation. It can be exceeded during the switching time.

Electrical Characteristics: Mounting base temperature 25°C unless otherwise specified.

	Symb.	Min.	Max.	Units
Current Gain V_{CE}= -1.5 Vdc; I_C= 25 Adc	h_{FE}	20	-	-
Current Gain V_{CE}=-2 Vdc; I_C=-10 Adc	h_{FE}	35	140	-
Collector Saturation Voltage I_C= 25 Adc; I_B= 2.5 Adc	V_{CE} V_{BE}	- -	1.0 1.5	Vdc Vdc
Emitter-Base Voltage I_{EBO}= 50 mAdc; I_C= 0	BV_{EBO}	1.5	-	Vdc
Collector-Emitter Breakdown Voltage I_C= 500 mAdc; R_{BE}= ∞	BV_{CEO} 2N1651 2N1652 2N1653	 30 60 80	 - - -	 Vdc Vdc Vdc

Typical Switching Characteristics:

Switching Times	Fall Time t_f	Storage Time t_s	Rise Time t_r	Units
	1.1	1.8	19	μsec

Conditions:

V_{CC} Vdc	I_C Adc	I_B(on) Adc	I_B(off) Adc	R_L ohms
12.5	25	2.5	-	0.5
12.5	25	-	2.5	0.5