

New Jersey Semi-Conductor Products, Inc.

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2N1651
2N1652
2N1653

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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}	V_{CB}	V_{EB}^{**}	I_C	P_C^*	T_{stg}^{oC}	T_J^{oC}
	Vdc	Vdc	Vdc	Adc	W		
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; $R_{BF} = \infty$	BV_{CEO}	2N1651: 30 2N1652: 60 2N1653: 80	- - -	Vdc Vdc Vdc

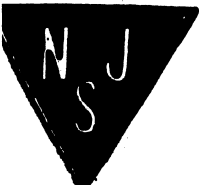
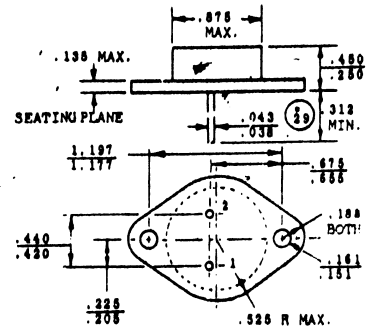
Typical Switching Characteristics:

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

Conditions:

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

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