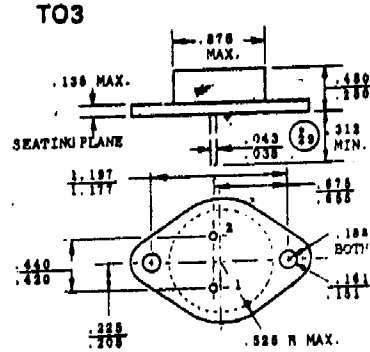


New Jersey Semi-Conductor Products, Inc.

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

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

2N1651
2N1652
2N1653



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}^{*}	T_J^{*}
	Vdc	Vdc	Vdc	Adc	W	$^{\circ}C$	$^{\circ}C$
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 $25^{\circ}C$ 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; $R_{BE} = \infty$	BV_{CEO}			
	2N1651	30	-	Vdc
	2N1652	60	-	Vdc
	2N1653	80	-	Vdc

Typical Switching Characteristics:

Switching Times	Fall Time	Storage Time	Rise Time	Units
	t_f	t_s	t_r	
	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

NJ Semi-Conductors reserves the right to change test conditions, parameters limits and package dimensions without notice information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

