

New Jersey Semi-Conductor Products, Inc.

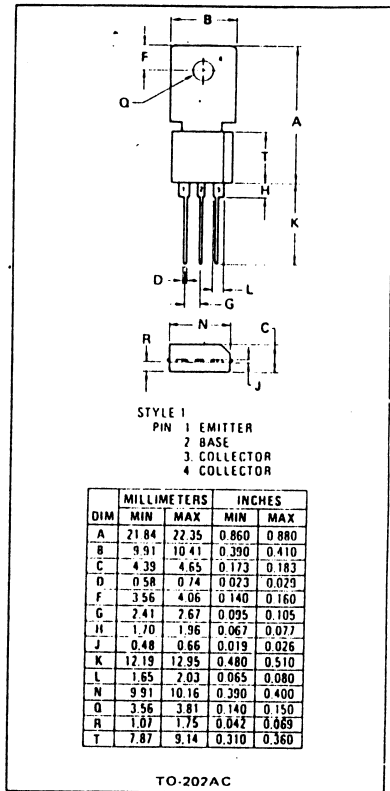
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2N6551 2N6552 2N6553

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NPN SILICON AMPLIFIER TRANSISTORS

MAXIMUM RATINGS					
Rating	Symbol	2N6551	2N6552	2N6553	Unit
*Collector-Emitter Voltage	V _{CE0}	60	80	100	Vdc
*Collector-Base Voltage	V _{CB0}	60	80	100	Vdc
*Emitter-Base Voltage	V _{EB0}	5.0			Vdc
*Collector Current - Continuous - Peak (1)	I _C	1.0 2.0			Adc
*Base Current	I _B	100			mAdc
*Total Power Dissipation @ T _A = 25°C Derate above 25°C	P _D	2.0 16			Watts mW/°C
Total Power Dissipation @ T _C = 25°C Derate above 25°C	P _D	10 80			Watts mW/°C
*Operating and Storage Junction Temperature Range	T _J , T _{stg}	-55 to +150			°C
*Solder Temperature, 1/16" from Case for 10 Seconds	-	260			°C
THERMAL CHARACTERISTICS					
Characteristic	Symbol	Max.	Unit		
Thermal Resistance, Junction to Ambient	R _{θJA}	62.5	°C/W		
Thermal Resistance, Junction to Case	R _{θJC}	12.5	°C/W		
*Indicates JEDEC Registered Data. (1) <10 ms, < 50% Duty Cycle					



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

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage (I _C = 1.0 mAdc, I _B = 0)	BV _{CE0}	60 80 100	-	Vdc
Collector-Base Breakdown Voltage (I _C = 100 μAdc, I _E = 0)	BV _{CB0}	60 80 100	-	Vdc
Emitter-Base Breakdown Voltage (I _E = 100 μAdc, I _C = 0)	BV _{EB0}	5.0	-	Vdc
Collector Cutoff Current (V _{CB} = 40 Vdc, I _E = 0) (V _{CB} = 60 Vdc, I _E = 0) (V _{CB} = 80 Vdc, I _E = 0)	I _{CBO}	-	100 100 100	nAdc
Emitter Cutoff Current (V _{EB} = 4.0 Vdc, I _C = 0)	I _{EBO}	-	100	nAdc
ON CHARACTERISTICS (1)				
DC Current Gain (I _C = 10 mAdc, V _{CE} = 1.0 Vdc) (I _C = 50 mAdc, V _{CE} = 1.0 Vdc) (I _C = 250 mAdc, V _{CE} = 1.0 Vdc) (I _C = 500 mAdc, V _{CE} = 1.0 Vdc)	h _{FE}	60 80 60 25	- 300 -	-
Collector-Emitter Saturation Voltage (I _C = 250 mAdc, I _B = 10 mAdc) (I _C = 1.0 Adc, I _B = 100 mAdc)	V _{CE(sat)}	-	0.5 1.0	Vdc
Base-Emitter On Voltage (I _C = 250 mAdc, V _{CE} = 5.0 Vdc)	V _{BE(on)}	-	1.2	Vdc
DYNAMIC CHARACTERISTICS				
Current-Gain - Bandwidth Product (I _C = 100 mAdc, V _{CE} = 5.0 Vdc, f = 20 MHz)	f _T	75	375	MHz
Collector-Base Capacitance (V _{CB} = 20 Vdc, I _E = 0, f = 1.0 MHz)	C _{cb}	-	18	pF

* Indicates JEDEC Registered Data
 (1) Pulse Test: Pulse Width < 300 μs, Duty Cycle < 2.0%

