

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

**2N6557**  
**2N6558**  
**2N6559**

**NPN SILICON  
 AMPLIFIER TRANSISTORS**

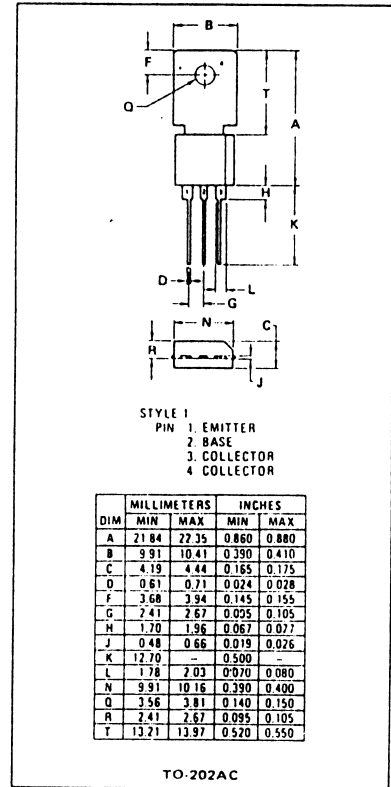
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MAXIMUM RATINGS					
Rating	Symbol	2N6557	2N6558	2N6559	Unit
*Collector-Emitter Voltage	V <sub>CEO</sub>	250	300	350	V <sub>dc</sub>
*Collector-Base Voltage	V <sub>CBO</sub>	250	300	350	V <sub>dc</sub>
*Emitter-Base Voltage	V <sub>EB0</sub>	← 6.0 →			V <sub>dc</sub>
*Collector Current - Continuous	I <sub>C</sub>	← 0.5 →			A <sub>dc</sub>
Peak		← 0.7 →			
*Base Current	I <sub>B</sub>	← 250 →			mA <sub>dc</sub>
*Total Power Dissipation @ T <sub>A</sub> = 25°C	P <sub>D</sub>	← 2.0 →			Watts
Derate above 25°C		← .16 →			mW/°C
Total Power Dissipation @ T <sub>C</sub> = 25°C	P <sub>D</sub>	← 10 →			Watts
Derate above 25°C		← 80 →			mW/°C
*Operating and Storage Junction Temperature Range	T <sub>J, T<sub>stg</sub></sub>	← -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 <sub>θJA</sub>	62.5	°C/W
Thermal Resistance, Junction to Case	R <sub>θJC</sub>	12.5	°C/W

\* Indicates JEDEC Registered Data.



\*ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
<b>OFF CHARACTERISTICS</b>				
Collector-Emitter Breakdown Voltage (I <sub>C</sub> = 1.0 mA <sub>dc</sub> , I <sub>B</sub> = 0)	BV <sub>CEO</sub>	250 300 350	-	V <sub>dc</sub>
Collector-Base Breakdown Voltage (I <sub>C</sub> = 100 μA <sub>dc</sub> , I <sub>E</sub> = 0)	BV <sub>CBO</sub>	250 300 350	-	V <sub>dc</sub>
Emitter-Base Breakdown Voltage (I <sub>E</sub> = 100 μA <sub>dc</sub> , I <sub>C</sub> = 0)	BV <sub>EB0</sub>	6.0	-	V <sub>dc</sub>
Collector Cutoff Current (V <sub>CB</sub> = 150 V <sub>dc</sub> , I <sub>E</sub> = 0) (V <sub>CB</sub> = 200 V <sub>dc</sub> , I <sub>E</sub> = 0) (V <sub>CB</sub> = 250 V <sub>dc</sub> , I <sub>E</sub> = 0)	I <sub>CBO</sub>	-	0.2 0.2 0.2	μA <sub>dc</sub>
Emitter Cutoff Current (V <sub>BE</sub> = 5.0 V <sub>dc</sub> , I <sub>C</sub> = 0)	I <sub>EB0</sub>	-	0.1	μA <sub>dc</sub>
<b>ON CHARACTERISTICS(1)</b>				
DC Current Gain (I <sub>C</sub> = 1.0 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> ) (I <sub>C</sub> = 30 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> )	h <sub>FE</sub>	25 40	- 180	-
Collector-Emitter Saturation Voltage (I <sub>C</sub> = 30 mA <sub>dc</sub> , I <sub>B</sub> = 3.0 mA <sub>dc</sub> ) (I <sub>C</sub> = 50 mA <sub>dc</sub> , I <sub>B</sub> = 5.0 mA <sub>dc</sub> )	V <sub>CE(sat)</sub>	-	0.6 1.5	V <sub>dc</sub>
Base-Emitter On Voltage (I <sub>C</sub> = 30 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> )	V <sub>BE(on)</sub>	-	0.85	V <sub>dc</sub>
<b>DYNAMIC CHARACTERISTICS</b>				
Current-Gain - Bandwidth Product (I <sub>C</sub> = 10 mA <sub>dc</sub> , V <sub>CE</sub> = 20 V <sub>dc</sub> , f = 20 MHz)	f <sub>T</sub>	45	200	MHz
Collector-Base Capacitance (V <sub>CB</sub> = 20 V <sub>dc</sub> , I <sub>E</sub> = 0, f = 1.0 MHz)	C <sub>cb</sub>	-	3.0	pF

\* Indicates JEDEC Registered Data.

(1) Pulse Test: Pulse Width < 300 μs, Duty Cycle < 2.0%.

