

New Jersey Semi-Conductor Products, Inc.

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2N1479
2N1480
2N1481
2N1482

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NPN SILICON TRANSISTOR

JEDEC TO-39 CASE

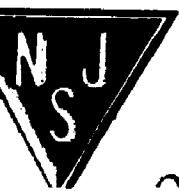
2N1479 series types are silicon NPN transistors manufactured by the epitaxial planar process, mounted in a hermetically sealed metal case designed for switching and amplifier applications.

MAXIMUM RATINGS ($T_C=25^\circ\text{C}$ unless otherwise noted)

| | <u>SYMBOL</u> | <u>2N1479</u> <u>2N1481</u> | <u>2N1480</u> <u>2N1482</u> | <u>UNIT</u> |
|--------------------------------------------|-----------------------------------|--------------------------------|--------------------------------|-------------|
| Collector-Base Voltage | V _{CB0} | 60 | 100 | V |
| Collector-Emitter Voltage | V _{CEV} | 60 | 100 | V |
| Collector-Emitter Voltage | V _{CEO} | 40 | 55 | V |
| Emitter-Base Voltage | V _{EB0} | 6.0 | 6.0 | V |
| Collector Current | I _C | 1.5 | 1.5 | A |
| Base Current | I _B | 1.0 | 1.0 | A |
| Power Dissipation | P _D | 5.0 | 5.0 | W |
| Operating and Storage Junction Temperature | T _J , T _{STG} | -65 TO +200 | | °C |
| Thermal Resistance | θ _{JC} | 35 | | °C/W |

ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$ unless otherwise noted)

| <u>SYMBOL</u> | <u>TEST CONDITIONS</u> | <u>2N1479</u> | | <u>2N1480</u> | | <u>2N1481</u> | | <u>2N1482</u> | | <u>UNIT</u> |
|----------------------|---------------------------------------------------------------------|---------------|------------|---------------|------------|---------------|------------|---------------|------------|-------------|
| | | <u>MIN</u> | <u>MAX</u> | <u>MIN</u> | <u>MAX</u> | <u>MIN</u> | <u>MAX</u> | <u>MIN</u> | <u>MAX</u> | |
| I _{CB0} | V _{CB} =30V | | 10 | | 10 | | 10 | | 10 | μA |
| I _{CB0} | V _{CB} =30V, T _C =150°C | | 500 | | 500 | | 500 | | 500 | μA |
| I _{EB0} | V _{EB} =6.0V | | 10 | | 10 | | 10 | | 10 | μA |
| BV _{CEV} | V _{EB} =1.5V, I _C =0.25mA | 60 | | 100 | | 60 | | 100 | | V |
| BV _{CEO} | I _C =50mA | 40 | | 55 | | 40 | | 55 | | V |
| V _{CE(SAT)} | I _C =200mA, I _B =10mA | | - | | - | | 1.4 | | 1.4 | V |
| V _{CE(SAT)} | I _C =200mA, I _B =20mA | | 1.4 | | 1.4 | | - | | - | V |
| V _{BE(ON)} | V _{CE} =4.0V, I _C =200mA | | 3.0 | | 3.0 | | 3.0 | | 3.0 | V |
| h _{FE} | V _{CE} =4.0V, I _C =200mA | 20 | 60 | 20 | 60 | 35 | 100 | 35 | 100 | |
| h _{fe} | V _{CE} =4.0V, I _C =5.0mA | | 50 TYP | | 50 TYP | | 50 TYP | | 50 TYP | |
| t _{ON} | I _C =200mA, I _{B1} =20mA, I _{B2} =85mA | | 1.2 TYP | | 1.2 TYP | | 1.2 TYP | | 1.2 TYP | μs |
| t _{OFF} | I _C =200mA, I _{B1} =20mA, I _{B2} =85mA | | 1.6 TYP | | 1.6 TYP | | 1.6 TYP | | 1.6 TYP | μs |
| C _{ob} | V _{CB} =40V | | 150 TYP | | 150 TYP | | 150 TYP | | 150 TYP | pF |
| f _{αB} | V _{CB} =28V, I _C =5.0mA | | 1.5 TYP | | 1.5 TYP | | 1.5 TYP | | 1.5 TYP | MHZ |



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