

**2N1479 JAN, JTX, JTXV**  
**2N1480 JAN, JTX, JTXV**  
**2N1481 JAN, JTX, JTXV**  
**2N1482 JAN, JTX, JTXV**

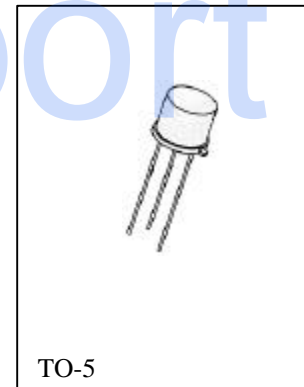


Processed per MIL-PRF-19500/207

**NPN SILICON MEDIUM-POWER TRANSISTOR**

**MAXIMUM RATINGS**

| Ratings  | Symbol         | 2N1479<br>2N1481 | 2N1480<br>2N1482 | Units       |
|--|----------------|------------------|------------------|-------------|
| Collector-Emitter Voltage                      | $V_{CEO}$      | 40               | 55               | Vdc         |
| Collector-Base Voltage                         | $V_{CBO}$      | 60               | 100              | Vdc         |
| Emitter-Base Voltage                           | $V_{EBO}$      | 12               |                  | Vdc         |
| Collector Current                              | $I_C$          | 1.5              |                  | Adc         |
| Base-Current                                   | $I_B$          | 1.0              |                  | Adc         |
| Total Power Dissipation @ $T_A = 25^{\circ}C$  | $P_T$          | 1.0              |                  | W           |
| Operating & Storage Junction Temperature Range | $T_J, T_{stg}$ | -65 to +200      |                  | $^{\circ}C$ |



**THERMAL CHARACTERISTICS**

| Characteristics                      | Symbol          | Max. | Unit          |
|--------------------------------------|-----------------|------|---------------|
| Thermal Resistance, Junction-to-Case | $R_{\theta JC}$ | 35   | $^{\circ}C/W$ |

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

| Characteristics | Symbol | Min. | Max. | Unit |
|-----------------|--------|------|------|------|
|-----------------|--------|------|------|------|

**OFF CHARACTERISTICS**

|   |                                  |               |            |                 |
|---|----------------------------------|---------------|------------|-----------------|
| Collector-Emitter Breakdown Voltage<br>$I_C = 50 \text{ mAdc}$  | 2N1479, 2N1481<br>2N1480, 2N1482 | $V_{(BR)CEO}$ | 40<br>55   | Vdc             |
| Collector-Emitter Breakdown Voltage<br>$V_{EB} = 1.5 \text{ Vdc}, I_C = 0.25 \text{ mAdc}$<br>$V_{EB} = 1.5 \text{ Vdc}, I_C = 0.25 \text{ mAdc}$ | 2N1479, 2N1481<br>2N1480, 2N1482 | $V_{(BR)CEX}$ | 60<br>100  | Vdc             |
| Collector-Base Cutoff Current<br>$V_{CB} = 30 \text{ Vdc}$<br>$V_{CB} = 50 \text{ Vdc}$   | 2N1479, 2N1481<br>2N1480, 2N1482 | $I_{CBO}$     | 5.0<br>5.0 | $\mu\text{Adc}$ |
| Emitter-Base Cutoff Current<br>$V_{EB} = 12 \text{ Vdc}$  |                                  | $I_{EBO}$     | 10         | $\mu\text{Adc}$ |

**2N1479, 2N1480, 2N1481, 2N1482 JAN SERIES**

**ELECTRICAL CHARACTERISTICS (con't)**

| Characteristics  | Symbol             | Min.     | Max.         | Unit          |
|--|--------------------|----------|--------------|---------------|
| <b>ON CHARACTERISTICS <sup>(1)</sup></b>   |                    |          |              |               |
| Forward-Current Transfer Ratio<br>$I_C = 200 \text{ mAdc}, V_{CE} = 4.0 \text{ Vdc}$<br>2N1479, 2N1480<br>2N1481, 2N1482   | $h_{FE}$           | 20<br>35 | 60<br>100    |               |
| Collector-Emitter Saturation Voltage<br>$I_C = 200 \text{ mAdc}, I_B = 20 \text{ mAdc}$<br>$I_C = 200 \text{ mAdc}, I_B = 10 \text{ mAdc}$<br>2N1479, 2N1480<br>2N1481, 2N1482 | $V_{CE(sat)}$      |          | 0.75<br>0.75 | Vdc           |
| Base-Emitter Voltage<br>$I_C = 200 \text{ mAdc}, V_{CE} = 4.0 \text{ Vdc}$   | $V_{BE}$           |          | 1.5          | Vdc           |
| <b>DYNAMIC CHARACTERISTICS</b>   |                    |          |              |               |
| Forward Current Cutoff Frequency<br>$I_C = 5.0 \text{ mAdc}, V_{CB} = 28 \text{ Vdc}$  | $f_{ab}$           | 800      |              | kHz           |
| <b>SWITCHING CHARACTERISTICS</b>   |                    |          |              |               |
| Total Switching Time<br>$V_{CC} = 12 \text{ Vdc}; R_C = 59 \Omega; I_{B0} = I_{B2} = 8.5 \text{ mAdc}; I_{B1} = 20 \text{ mAdc}$   | $t_{on} + t_{off}$ |          | 25           | $\mu\text{s}$ |

(1) Pulse Test: Pulse Width = 300 $\mu\text{s}$ , Duty Cycle  $\leq$  2.0%.