

2N3773 NPN
2N6609 PNP

COMPLEMENTARY SILICON
POWER TRANSISTORS



www.centralsemi.com



TO-3 CASE

MAXIMUM RATINGS: ($T_C=25^\circ\text{C}$)

| | | | |
|--|----------------|-------------|---------------------------|
| Collector-Emitter Voltage | V_{CBO} | 160 | V |
| Collector-Emitter Voltage | V_{CEV} | 160 | V |
| Collector-Emitter Voltage | V_{CEO} | 140 | V |
| Emitter-Base Voltage | V_{EBO} | 7.0 | V |
| Continuous Collector Current | I_C | 16 | A |
| Peak Collector Current | I_{CM} | 30 | A |
| Continuous Base Current | I_B | 4.0 | A |
| Peak Base Current | I_{BM} | 15 | A |
| Power Dissipation | PD | 150 | W |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -65 to +200 | $^\circ\text{C}$ |
| Thermal Resistance | Θ_{JC} | 1.17 | $^\circ\text{C}/\text{W}$ |

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

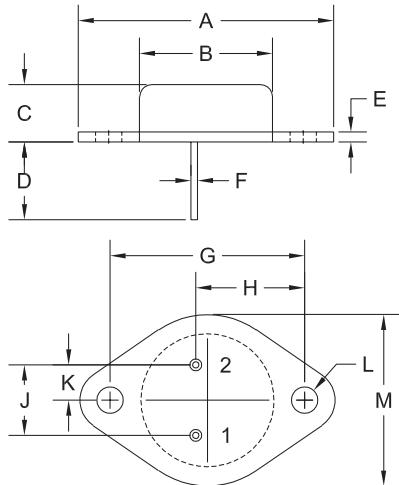
| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|----------------------|---|-----|-----|-------|
| I_{CBO} | $V_{CB}=140\text{V}$ | | 2.0 | mA |
| I_{CEV} | $V_{CE}=140\text{V}$, $V_{BE(\text{OFF})}=1.5\text{V}$ | | 2.0 | mA |
| I_{CEO} | $V_{CE}=120\text{V}$ | | 10 | mA |
| I_{EBO} | $V_{EB}=7.0\text{V}$ | | 5.0 | mA |
| BV_{CEV} | $I_C=0.1\text{A}$, $V_{BE(\text{OFF})}=1.5\text{V}$, $R_{BE}=100\Omega$ | 160 | | V |
| BV_{CER} | $I_C=0.2\text{A}$, $R_{BE}=100\Omega$ | 150 | | V |
| BV_{CEO} | $I_C=0.2\text{A}$ | 140 | | V |
| $V_{CE(\text{SAT})}$ | $I_C=8.0\text{A}$, $I_B=800\text{mA}$ | | 1.4 | V |
| $V_{CE(\text{SAT})}$ | $I_C=16\text{A}$, $I_B=3.2\text{A}$ | | 4.0 | V |
| $V_{BE(\text{ON})}$ | $V_{CE}=4.0\text{V}$, $I_C=8.0\text{A}$ | | 2.2 | V |
| h_{FE} | $V_{CE}=4.0\text{V}$, $I_C=8.0\text{A}$ (2N3773) | 15 | | |
| h_{FE} | $V_{CE}=4.0\text{V}$, $I_C=8.0\text{A}$ (2N6609) | 15 | 60 | |
| h_{FE} | $V_{CE}=4.0\text{V}$, $I_C=16\text{A}$ | 5.0 | | |
| h_{fe} | $V_{CE}=4.0\text{V}$, $I_C=1.0\text{A}$, $f=1.0\text{kHz}$ | 40 | | |
| f_T | $I_C=1.0\text{A}$, $f=50\text{kHz}$ | 200 | | kHz |
| $I_{s/b}$ | $V_{CE}=100\text{V}$, $t_p=1.0\text{s}$ | 1.5 | | A |

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TO-3 CASE - MECHANICAL OUTLINE



R2

| SYMBOL | INCHES | | MILLIMETERS | |
|---------|--------|-------|-------------|-------|
| | MIN | MAX | MIN | MAX |
| A | 1.516 | 1.573 | 38.50 | 39.96 |
| B (DIA) | 0.748 | 0.875 | 19.00 | 22.23 |
| C | 0.250 | 0.450 | 6.35 | 11.43 |
| D | 0.433 | 0.516 | 11.00 | 13.10 |
| E | 0.054 | 0.065 | 1.38 | 1.65 |
| F | 0.035 | 0.045 | 0.90 | 1.15 |
| G | 1.177 | 1.197 | 29.90 | 30.40 |
| H | 0.650 | 0.681 | 16.50 | 17.30 |
| J | 0.420 | 0.440 | 10.67 | 11.18 |
| K | 0.205 | 0.225 | 5.21 | 5.72 |
| L (DIA) | 0.151 | 0.172 | 3.84 | 4.36 |
| M | 0.984 | 1.050 | 25.00 | 26.67 |

TO-3 (REV: R2)

LEAD CODE:

- 1) Base
- 2) Emitter
- Case) Collector

MARKING:

FULL PART NUMBER

R2 (16-May 2022)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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