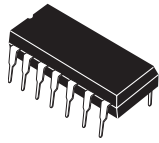


MPQ3725A
NPN SILICON
QUAD TRANSISTOR



TO-116 CASE

CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR MPQ3725A type is comprised of four independent silicon NPN transistors mounted in a 14-Pin DIP case, designed for core driver applications.

MARKING CODE: FULL PART NUMBER

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

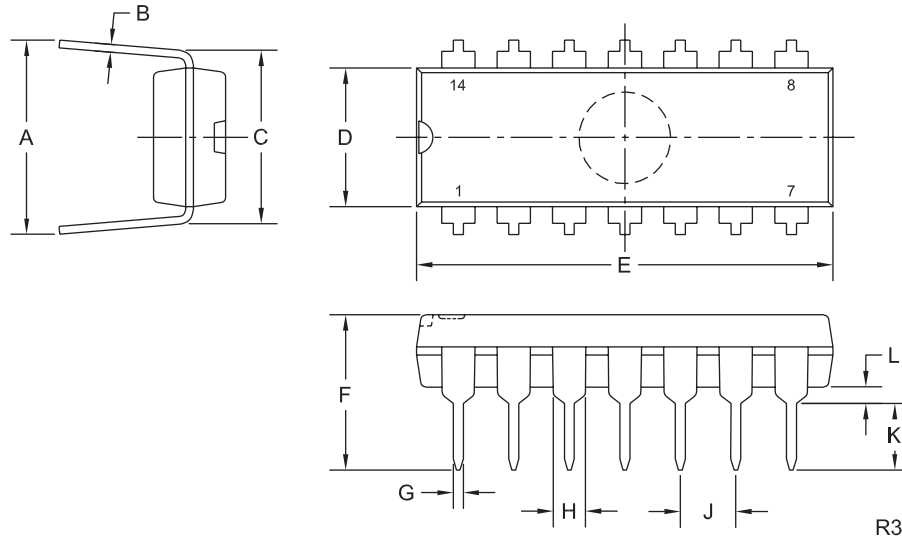
| |
|--|
| Collector-Emitter Voltage |
| Collector-Emitter Voltage |
| Emitter-Base Voltage |
| Collector Current |
| Power Dissipation (each transistor) |
| Power Dissipation (total package) |
| Operating and Storage Junction Temperature |

| SYMBOL | | UNITS |
|----------------|-------------|------------------|
| V_{CES} | 70 | V |
| V_{CEO} | 50 | V |
| V_{EBO} | 5.0 | V |
| I_C | 1.0 | A |
| P_D | 1.0 | W |
| P_D | 2.5 | W |
| T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$)

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|---------------|---|-----|------|-------|
| I_{CBO} | $V_{CB}=40\text{V}$ | | 500 | nA |
| BV_{CEO} | $I_C=10\text{mA}$ | 50 | | V |
| BV_{CES} | $I_C=100\mu\text{A}$ | 70 | | V |
| BV_{EBO} | $I_E=10\mu\text{A}$ | 5.0 | | V |
| $V_{CE(SAT)}$ | $I_C=500\text{mA}, I_B=50\text{mA}$ | | 0.45 | V |
| $V_{BE(SAT)}$ | $I_C=500\text{mA}, I_B=50\text{mA}$ | 0.8 | 1.0 | V |
| h_{FE} | $V_{CE}=1.0\text{V}, I_C=100\text{mA}$ | 40 | | |
| h_{FE} | $V_{CE}=2.0\text{V}, I_C=500\text{mA}$ | 30 | | |
| f_T | $V_{CE}=10\text{V}, I_C=50\text{mA}, f=100\text{MHz}$ | 200 | | MHz |
| C_{ob} | $V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$ | | 10 | pF |
| C_{ib} | $V_{EB}=0.5\text{V}, I_C=0, f=1.0\text{MHz}$ | | 80 | pF |

TO-116 CASE - MECHANICAL OUTLINE

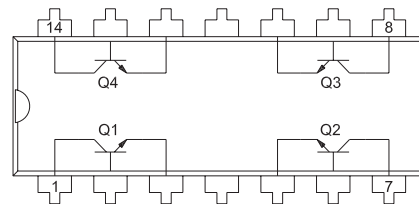


| SYMBOL | INCHES | | MILLIMETERS | |
|--------|--------|-------|-------------|------|
| | MIN | MAX | MIN | MAX |
| A | 0.310 | 0.390 | 7.9 | 9.9 |
| B | 0.008 | 0.014 | 0.2 | 0.4 |
| C | 0.310 | | 7.9 | |
| D | 0.240 | 0.260 | 6.1 | 6.6 |
| E | 0.740 | 0.760 | 18.8 | 19.3 |
| F | - | 0.300 | - | 7.6 |
| G | 0.014 | 0.022 | 0.4 | 0.6 |
| H | 0.050 | | 1.3 | |
| J | 0.100 | | 2.5 | |
| K | 0.125 | 0.150 | 3.2 | 3.8 |
| L | 0.015 | - | 0.4 | - |

TO-116 (REV: R3)

MARKING CODE: FULL PART NUMBER

PIN CONFIGURATION



LEAD CODE:

- | | |
|-----------------|------------------|
| 1) COLLECTOR Q1 | 8) COLLECTOR Q3 |
| 2) BASE Q1 | 9) BASE Q3 |
| 3) EMITTER Q1 | 10) EMITTER Q3 |
| 4) NC | 11) NC |
| 5) EMITTER Q2 | 12) EMITTER Q4 |
| 6) BASE Q2 | 13) BASE Q4 |
| 7) COLLECTOR Q2 | 14) COLLECTOR Q4 |

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).

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