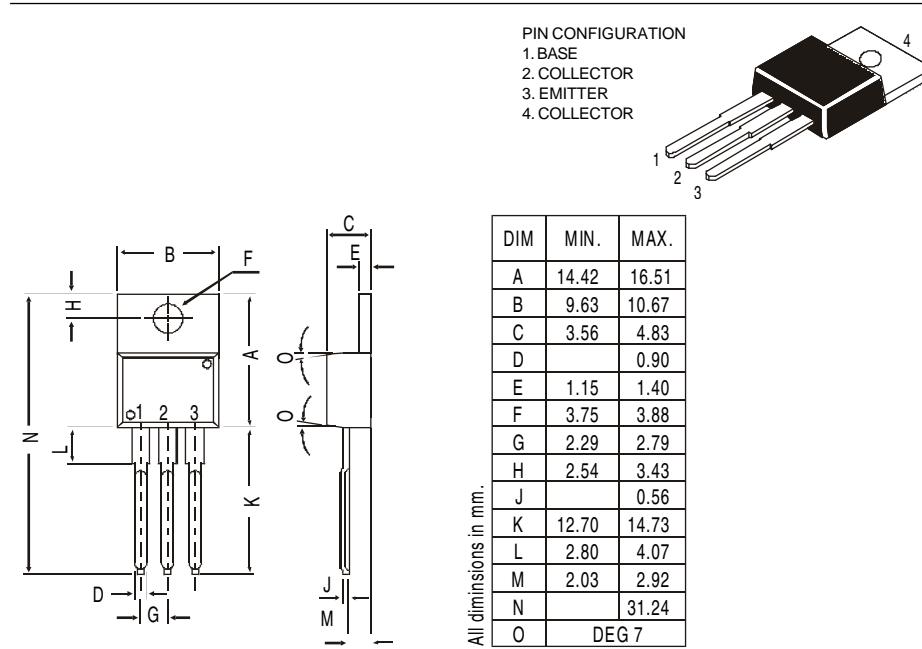


TO-220 Plastic Package

CSA748

CSA748 PNP PLASTIC POWER TRANSISTOR
Complementary CSC1398
Medium Power Amplifier



ABSOLUTE MAXIMUM RATINGS

Collector-base voltage (open emitter)

V_{CBO} max. 70 V

Collector-emitter voltage (open base)

V_{CEO} max. 50 V

Collector current

I_C max. 2.0 A

Total power dissipation up to $T_C = 25^\circ\text{C}$

P_{tot} max. 15 W

Junction temperature

T_j max. 150 °C

Collector-emitter saturation voltage

V_{CEsat} max. 1.0 V

$I_C = 1 \text{ A}; I_B = 100 \text{ mA}$

D.C. current gain

$I_C = 1 \text{ A}; V_{CE} = 5 \text{ V}$

h_{FE} min. 50

max. 220

RATINGS (at $T_A=25^\circ\text{C}$ unless otherwise specified)

Limiting values

Collector-base voltage (open emitter)

V_{CBO} max. 70 V

Collector-emitter voltage (open base)

V_{CEO} max. 50 V

Emitter-base voltage (open collector)

V_{EBO} max. 5.0 V

Collector current

I_C max. 2.0 A

| | | | | |
|--|-----------|--------------------|-----|-----------|
| <i>Collector current (Peak)</i> | I_{CP} | <i>max.</i> | 3.0 | <i>A</i> |
| <i>Total power dissipation up to $T_C = 25^\circ C$</i> | P_{tot} | <i>max.</i> | 15 | <i>W</i> |
| <i>Junction temperature</i> | T_j | <i>max.</i> | 150 | <i>°C</i> |
| <i>Storage temperature</i> | T_{stg} | <i>–65 to +150</i> | | <i>°C</i> |

CHARACTERISTICS $T_{amb} = 25^\circ C$ unless otherwise specified*Collector cutoff current*
 $I_E = 0; V_{CB} = 40 \text{ V}$
 $I_B = 0; V_{CE} = 20 \text{ V}$
 I_{CBO} *max.* 1 μA
 I_{CEO} *max.* 100 μA
Emitter cut-off current $I_C = 0; V_{EB} = 5 \text{ V}$ I_{EBO} *max.* 100 μA *Breakdown voltages*
 $I_C = 10 \text{ mA}; I_B = 0$
 $I_C = 1 \text{ mA}; I_E = 0$
 $I_E = 1 \text{ mA}; I_C = 0$
 V_{CEO} *min.* 50 V
 V_{CBO} *min.* 70 V
 V_{EBO} *min.* 5.0 V
Saturation voltages
 $I_C = 1 \text{ A}; I_B = 100 \text{ mA}$
 $I_C = 2 \text{ A}; I_B = 200 \text{ mA}$
 V_{CEsat} *max.* 1.0 V
 V_{BEsat} *max.* 1.5 V
D.C. current gain $I_C = 100 \text{ mA}; V_{CE} = 5 \text{ V}$ h_{FE} *min.* 30 $I_C = 1 \text{ A}; V_{CE} = 5 \text{ V}^{**}$
 h_{FE} *min.* 50
max. 220

** h_{FE} classification: P: 50-100 Q: 80-160 R: 120-220

Customer Notes

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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