

TO-220 Plastic Package

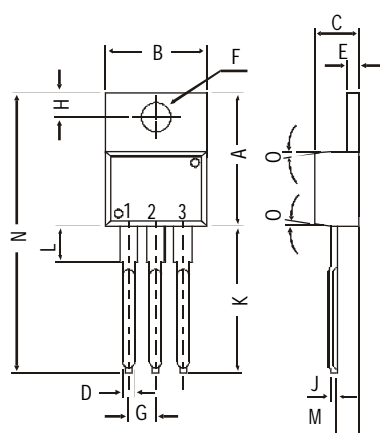
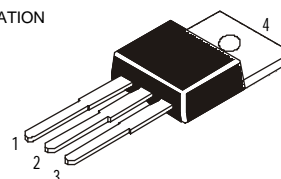
CSC2233

CSC2233 NPN PLASTIC POWER TRANSISTOR

TV Horizontal Deflection Output Applications

PIN CONFIGURATION

1. BASE
2. COLLECTOR
3. EMITTER
4. COLLECTOR



| DIM | MIN. | MAX. |
|-----|-------|-------|
| A | 14.42 | 16.51 |
| B | 9.63 | 10.67 |
| C | 3.56 | 4.83 |
| D | | 0.90 |
| E | 1.15 | 1.40 |
| F | 3.75 | 3.88 |
| G | 2.29 | 2.79 |
| H | 2.54 | 3.43 |
| J | | 0.56 |
| K | 12.70 | 14.73 |
| L | 2.80 | 4.07 |
| M | 2.03 | 2.92 |
| N | | 31.24 |
| O | DEG 7 | |

All dimensions in mm.

ABSOLUTE MAXIMUM RATINGS

Collector-base voltage (open emitter)

V_{CBO} max. 200 V

Collector-emitter voltage (open base)

V_{CEO} max. 60 V

Collector current

I_C max. 4 A

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

P_{tot} max. 40 W

Junction temperature

T_j max. 150 °C

Collector-emitter saturation voltage

V_{CEsat} max. 1.0 V

$I_C = 4\text{ A}; I_B = 0.4\text{ A}$

D.C. current gain

h_{FE} min. 30

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

max. 150

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

Limiting values

Collector-base voltage (open emitter)

V_{CBO} max. 200 V

Collector-emitter voltage (open base)

V_{CEO} max. 60 V

Emitter-base voltage (open collector)

V_{EBO} max. 5.0 V

Collector current

I_C max. 4 A

Collector current (Peak value)

I_{CP} max. 10 A

CSC2233

| | | | |
|--|-----------|----------------|--------|
| Base current | I_B | max. | 1.0 A |
| Total power dissipation up to $T_A = 25^\circ\text{C}$ | P_{tot} | max. | 1.5 W |
| Total power dissipation up to $T_C = 25^\circ\text{C}$ | P_{tot} | max. | 40 W |
| Junction temperature | T_j | max. | 150 °C |
| Storage temperature | T_{stg} | -65 to +150 °C | |

CHARACTERISTICS

$T_{amb} = 25^\circ\text{C}$ unless otherwise specified

Collector cutoff current

$I_E = 0$; $V_{CB} = 170\text{ V}$

I_{CBO} max. 10 μA

Emitter cut-off current

$I_C = 0$; $V_{EB} = 5\text{ V}$

I_{EBO} max. 10 μA

Breakdown voltages

$I_C = 20\text{ mA}$; $I_B = 0$

V_{CEO} min. 60 V

$I_C = 1\text{ mA}$; $I_E = 0$

V_{CBO} min. 200 V

$I_E = 1\text{ mA}$; $I_C = 0$

V_{EBO} min. 5.0 V

Saturation voltages

$I_C = 4\text{ A}$; $I_B = 0.4\text{ A}$

V_{CEsat} max. 1.0 V

V_{BEsat} max. 1.5 V

D.C. current gain

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

h_{FE} min. 30

max. 150

$I_C = 4\text{ A}$; $V_{CE} = 5\text{ V}$

h_{FE} min. 20

Transition frequency

$I_C = 0.5\text{ A}$; $V_{CE} = 5\text{ V}$

f_T typ. 8 MHz

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Disclaimer

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Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119
email@cdil.com www.cdilsemi.com