

TO-220 Plastic Package

CSA940, CSC2073

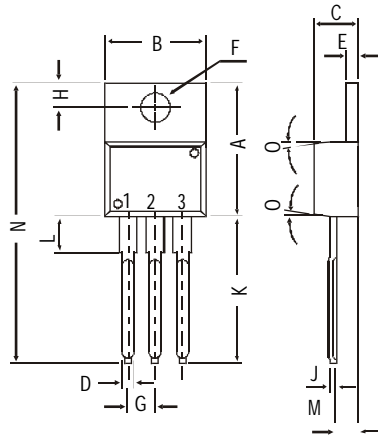
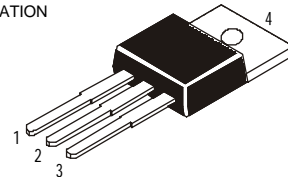
CSA940 PNP PLASTIC POWER TRANSISTOR

CSC2073 NPN PLASTIC POWER TRANSISTOR

Power Amplifier Applications and Vertical 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_{CB0}	max.	150 V
Collector-emitter voltage (open base)	V_{CE0}	max.	150 V
Collector current	I_C	max.	1.5 A
Total power dissipation up to $T_C = 25^\circ C$	P_{tot}	max.	25 W
Junction temperature	T_j	max.	150 °C
Collector-emitter saturation voltage $I_C = 500 \text{ mA}; I_B = 50 \text{ mA}$	V_{CEsat}	max.	1.5 V
D.C. current gain $I_C = 500 \text{ mA}; V_{CE} = 10 \text{ V}$	h_{FE}	min.	40
		max.	140

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

<i>Limiting values</i>			
Collector-base voltage (open emitter)	V_{CB0}	max.	150 V
Collector-emitter voltage (open base)	V_{CE0}	max.	150 V
Emitter-base voltage (open collector)	V_{EBO}	max.	5.0 V

Collector current	I_C	max.	1.5 A
Base current	I_B	max.	0.5 A
Total power dissipation up to $T_C = 25^\circ\text{C}$	P_{tot}	max.	25 W
Total power dissipation up to $T_A = 25^\circ\text{C}$	P_{tot}	max.	1.5 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

$I_E = 0; V_{CB} = 120\text{ V}$

I_{CBO} max. 10 μA

Emitter cut-off current

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

I_{EBO} max. 10 μA

Breakdown voltages

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

V_{CEO} min. 150 V

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

V_{CBO} min. 150 V

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

V_{EBO} min. 5.0 V

Saturation voltages

$I_C = 500\text{ mA}; I_B = 50\text{ mA}$

V_{CEsat} max. 1.5 V

Base emitter on voltage

$I_C = 500\text{ mA}; V_{CE} = 10\text{ V}$

$V_{BE(on)}$ min. 0.65 V
max. 0.85 V

D.C. current gain

$I_C = 500\text{ mA}; V_{CE} = 10\text{ V}$

h_{FE} min. 40
max. 140

Output capacitance at $f = 1\text{ MHz}$

$I_E = 0; V_{CB} = 10\text{ V}$ **NPN**
PNP

C_o typ. 35 pF
typ. 55 pF

Transition frequency

$I_C = 500\text{ mA}; V_{CE} = 10\text{ V}$

f_T typ. 4 MHz

Customer Notes

Disclaimer

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