

T-43-25

IR2C30/IR2C30N 7-Unit 120mA Transistor Array

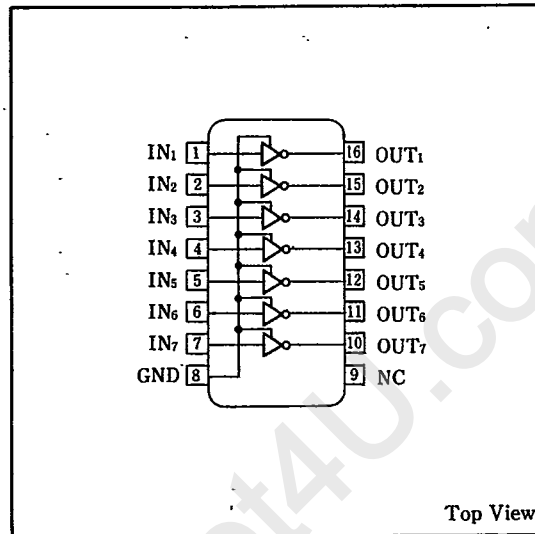
■ Description

The IR2C30/IR2C30N is a 7-circuit driver. It can be directly driven by CMOS LSI.

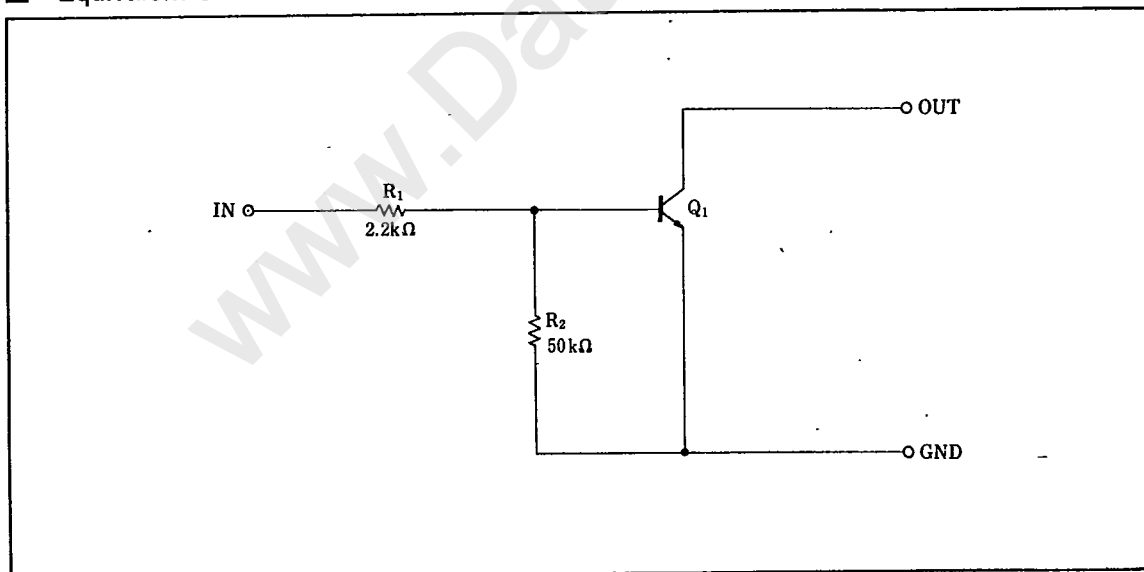
■ Features

1. Output breakdown voltage $BV_{CEO}=20V$ (MAX.)
2. Output current capability $I_{OUT}=120mA$ (MAX.)
3. Low input current
4. Directly driven by MOS output
5. 16-pin dual-in-line package (IR2C30)
16-pin small-outline package (IR2C30N)

■ Pin Connections



■ Equivalent Circuit



■ Absolute Maximum Ratings

| Parameter | Symbol | Condition | Rating | Unit | |
|--------------------------|-----------------------------|-----------------------------|----------|------|-------|
| Output breakdown voltage | BV_{CEO} | | 20 | V | |
| Output current | I_{OUT} | | 120 | mA | |
| Input voltage | V_{IN} | | 0~10 | V | |
| Power dissipation | P_D | $T_a \leq 25^\circ\text{C}$ | IR2C30 | 950 | mW |
| | | | IR2C30N | 500 | |
| P_D derating ratio | $\Delta P_D/^\circ\text{C}$ | $T_a > 25^\circ\text{C}$ | IR2C30 | 9.5 | mW/°C |
| | | | IR2C30N | 4 | |
| Operating temperature | T_{opr} | | -20~+85 | °C | |
| Storage temperature | T_{stg} | | -55~+150 | °C | |

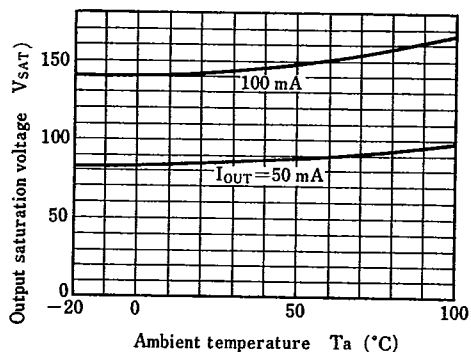
■ Electrical Characteristics

($T_a = -20 \sim +85^\circ\text{C}$)

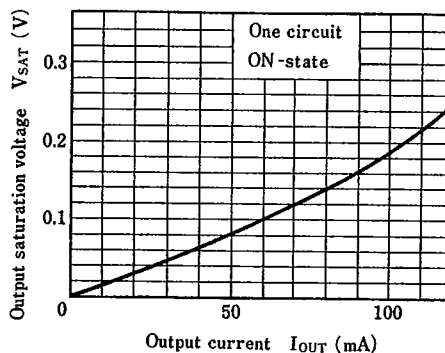
| Parameter | Symbol | Condition | MIN. | TYP. | MAX. | Unit |
|--------------------------|--------------|---|------|------|------|---------------|
| OFF-state output current | $I_{O\ OFF}$ | $V_{OUT}=20\text{V}, V_{IN}=0.2\text{V}$ | | | 10 | μA |
| ON-state output voltage | $V_{O\ ON}$ | $I_{OUT}=50\text{mA}$ | | 0.1 | 0.3 | V |
| | | $I_{OUT}=100\text{mA}$ | | 0.2 | 0.5 | |
| Input "High" voltage | V_{IH} | $I_{OUT}=50\text{mA}, V_{OUT}=0.3\text{V}$ | 2.3 | | | V |
| | | $I_{OUT}=100\text{mA}, V_{OUT}=0.5\text{V}$ | 2.9 | | | |
| Input "Low" voltage | V_{IL} | | | | 0.2 | V |
| Input "High" current | I_{IH} | $V_{IN}=2.5\text{V}, I_{OUT}=100\text{mA}$ | 0.55 | | 1.2 | mA |
| | | $V_{IN}=4.3\text{V}, I_{OUT}=100\text{mA}$ | 1.1 | | 2.3 | |

■ Electrical Characteristic Curves

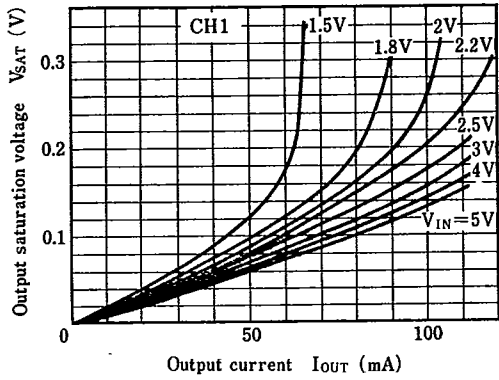
Output saturation voltage—Ambient temperature Characteristics



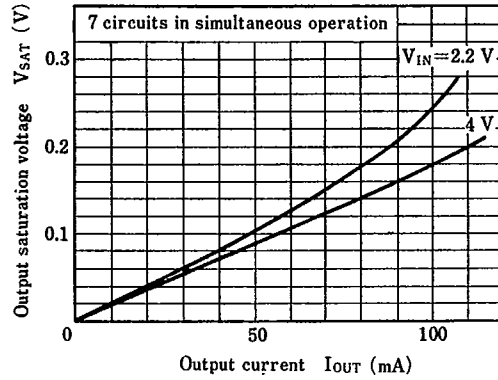
Output saturation voltage—Output current Characteristics



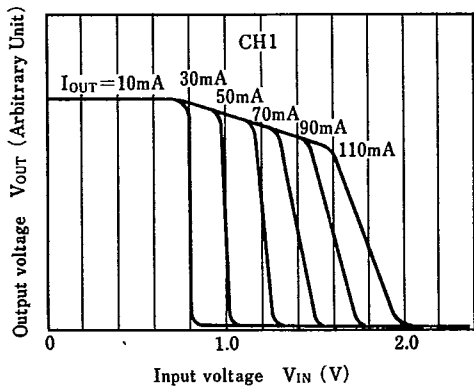
Output saturation voltage—Output current Characteristics



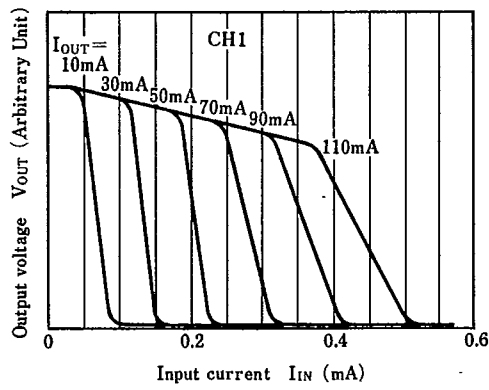
Output saturation voltage—Output current Characteristics



Output voltage—Input voltage Characteristics



Output voltage—Input current Characteristics



Output saturation voltage—Input voltage Characteristics

