

# IR2C35 7-Unit 350mA Transistor Array

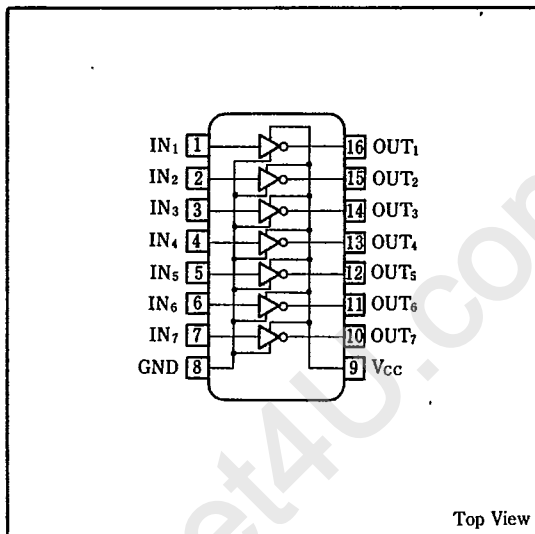
## ■ Description

The IR2C35 is a 7-circuit driver IC which consists of NPN transistors connected with a  $2k\Omega$  resistor. It can directly drive a load of 350mA with minute input current. The output voltage at the time of switching ON is as low as 0.5V maximum (when output is 250mA).

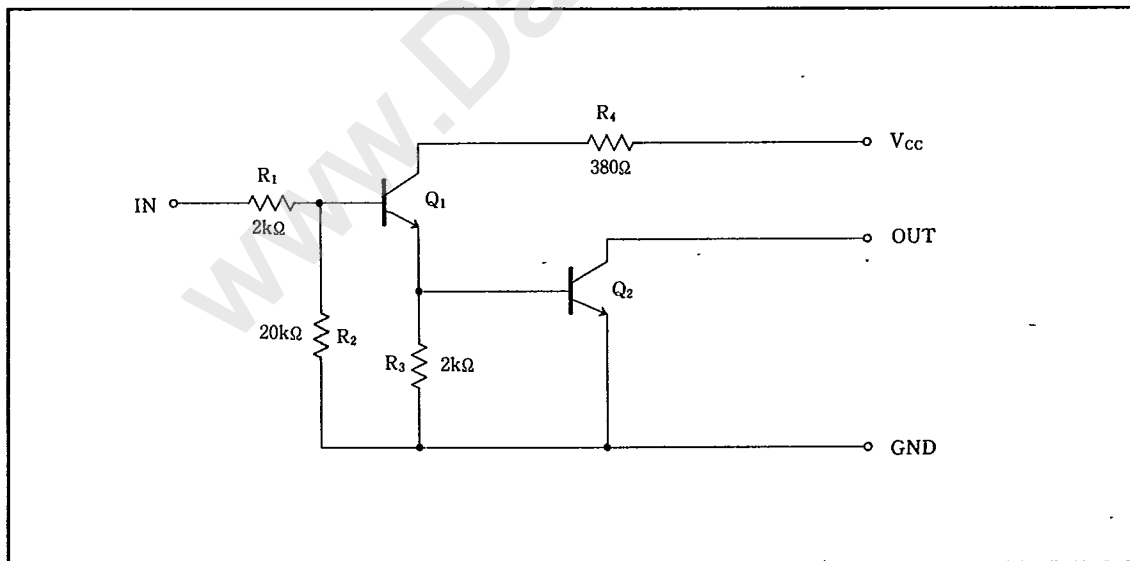
## ■ Features

1. Output breakdown voltage  $BV_{CEO} = 20V$  (MAX.)
2. Maximum output current  $I_{OUT} = 350mA$  (MAX.)
3. Output voltage at ON  $I_{OUT ON} = 0.5V$  MAX. (When output is 250mA)
4. 16-pin dual-in-line package

## ■ Pin Connections



## ■ Equivalent Circuit



**Absolute Maximum Ratings**

Parameter	Symbol	Condition	Rating	Unit
Supply voltage	$V_{CC}$		10	V
Breakdown voltage between collector and emitter	$BV_{CEO}$		20	V
Output current	$I_{OUT}$	each circuit	350	mA
Input voltage	$V_{IN}$		10	V
Power dissipation	$P_D$	$T_a \leq 25^\circ C$	1.47	W
$P_D$ derating ratio	$\Delta P_D / ^\circ C$	$T_a > 25^\circ C$	11.76	mW/ $^\circ C$
Operating temperature	$T_{opr}$		-20 ~ +75	$^\circ C$
Storage temperature	$T_{stg}$		-55 ~ +150	$^\circ C$



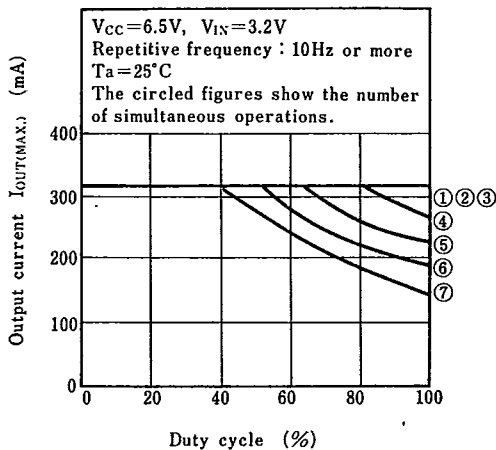
**Electrical Characteristics**

Parameter	Symbol	Condition	MIN.	TYP.	MAX.	Unit
Supply voltage	$V_{CC}$		3		8	V
Input "High" voltage	$V_{IH}$		3			V
Input "Low" voltage	$V_{IL}$	$I_{OUT} < 100 \mu A$			0.3	V
Input current	$I_{IN}$	$V_{CC} = 8V$	$V_{IN} = 3.2V$		1.5	mA
			$V_{IN} = 10V$		7.3	mA
Output current at OFF	$I_{OUT OFF}$	$V_{CC} = 8V, V_{OUT} = 20V$			100	$\mu A$
Output voltage at ON	$V_{OUT ON}$	$V_{IN} = 3V$	$V_{CC} = 6.5V, I_{OUT} = 320mA$		0.8	V
			$V_{CC} = 6.5V, I_{OUT} = 250mA$		0.5	V
			$V_{CC} = 3V, I_{OUT} = 150mA$		0.35	V
Supply current at ON	$I_{CC ON}$	$V_{CC} = 8V, V_{IN} = 3.2V$			190	mA

**Electrical Characteristic Curves**

Maximum output current

—Duty cycle Characteristics (1)



Maximum output current

—Duty cycle Characteristics (2)

