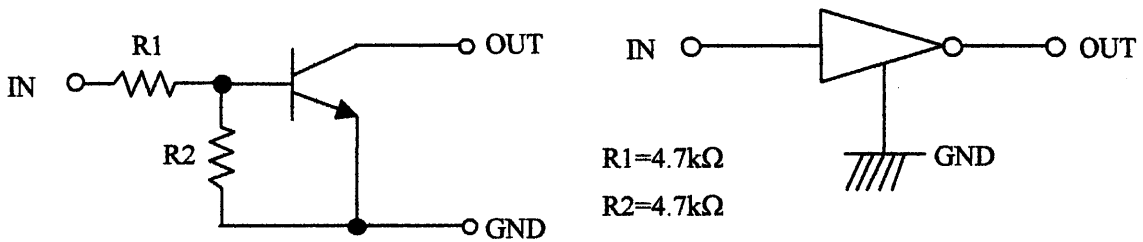


- 1. TYPE                    DTD143EC
- 2. STRUCTURE            NPN SILICON EPITAXIAL PLANAR DIGITAL TRANSISTOR
- 3. APPLICATIONS        INVERTER, INTERFACE, DRIVER
- 4. ABSOLUTE MAXIMUM RATINGS    [Ta=25°C]

SUPPLY VOLTAGE	V <sub>CC</sub>	• • •	50V
INPUT VOLTAGE	V <sub>IN</sub>	• • •	-10 ~ 30V
COLLECTOR CURRENT *	I <sub>C(max)</sub>	• • •	500mA
POWER DISSIPATION	P <sub>d</sub>	• • •	200mW
JUNCTION TEMPERATURE	T <sub>j</sub>	• • •	150°C
STORAGE TEMPERATURE RANGE	T <sub>stg</sub>	• • •	-55~150°C

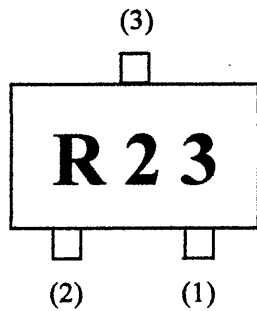
\* CHARACTERISTICS OF BUILT-IN TRANSISTOR

5. INTERNAL CIRCUIT



R1=4.7kΩ  
R2=4.7kΩ

6. MARKING



“ R23 ” MEASNS DTD143EC.

- (1) GND
- (2) IN
- (3) OUT

DESIGN	CHECK	APPROVAL	DATE : 31/MAY/2004	SPECIFICATION No. TSQ03030-D713-12
<i>T. Hashimoto</i>	<i>S. Sahara</i>	<i>T. Konishi</i>	REV. : 2	<b>ROHM CO., LTD.</b>

6. ELECTRICAL CHARACTERISTICS [Ta=25°C]

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.
INPUT VOLTAGE	VI(off)	VCC=5V / IO=100μA	-	-	0.5V
	VI(on)	VO=0.3V / IO=20mA	3.0V	-	-
OUTPUT VOLTAGE	VO(on)	IO=50mA / II=2.5mA	-	0.1V	0.3V
INPUT CURRENT	II	VI=5V	-	-	1.8mA
OUTPUT CURRENT	IO(off)	VCC=50V / VI=0V	-	-	0.5μA
DC CURRENT GAIN	GI	VO=5V / IO=50mA	47	-	-
TRANSITION FREQUENCY	fT *	VCE=10V / IE=-50mA f=100MHz	-	200MHz	-
INPUT RESISTANCE	R1		3.29kΩ	4.7kΩ	6.11kΩ
RESISTANCE RATIO	R2/R1		0.8	1.0	1.2

\* CHARACTERISTICS OF BUILT-IN TRANSISTOR.

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