

# BMR - 0301

BMR-0301 is the low reset type of IC that guarantee to set again micro computers or logic systems by detecting the intermittent of fluctuating power supply voltage during normal use or switching on/off of the equipments.

A comparator type of hysteresis transistor developed by KODENSHI is built in the IC, so that BMR-0301 is very cost effective components. And, BMR-0301 is a super-low consumption electric current system reset IC which has been developed with using high resistance process.

**FEATURES**

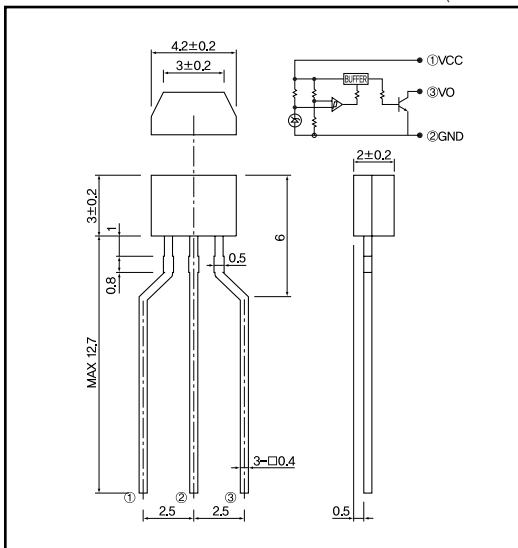
- Super-low current consumption
- Low operation voltage
- High current of output transistor
- Hysteresis circuit built in
- It has on delay function to supplement the constant of outer C and R

**APPLICATIONS**

- Micro computer circuits in mobile phones, word processors, TVs, VCRs etc.
- General logic circuits
- Detection of voltage drop in batteries of note personal computers mobile phones
- Switching to backup power supply

**DIMENSIONS**

(Unit : mm)



**MAXIMUM RATINGS**

(Ta=25 )

Item	Symbol	Rating	Unit
Supply voltage	V <sub>cc</sub>	-0.3~+10.0	V
Power dissipation	P <sub>b</sub>	200	mW
Operating temp.	T <sub>opr.</sub>	-20~+75	
Storage temp.	T <sub>stg</sub>	-40~+125	
Soldering temp.*1	T <sub>sol.</sub>	260	

\*1.5sec at location of 2mm away from lead bottom.

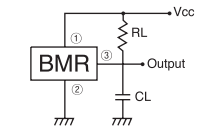
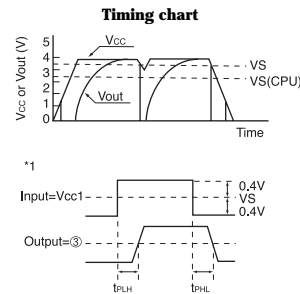
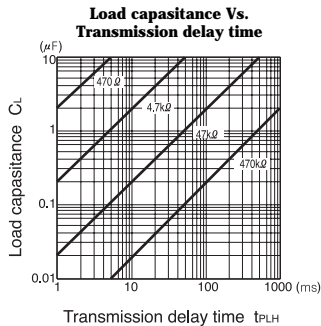
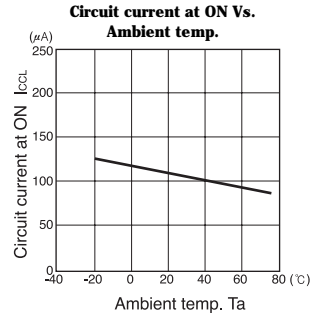
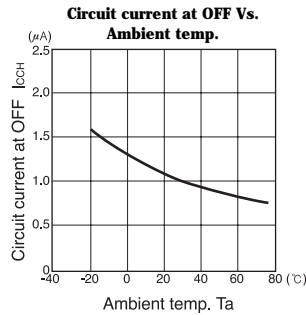
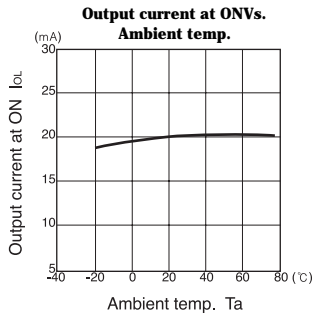
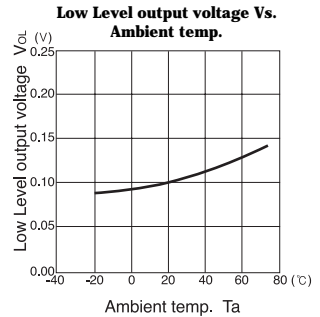
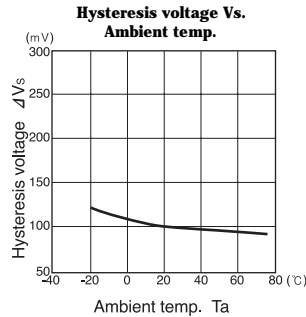
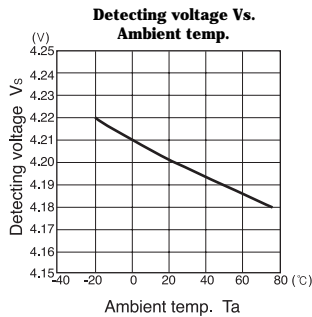
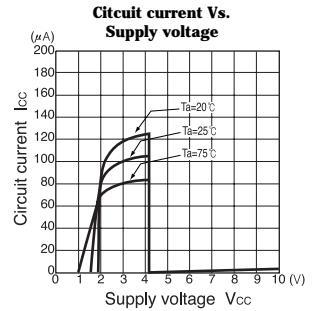
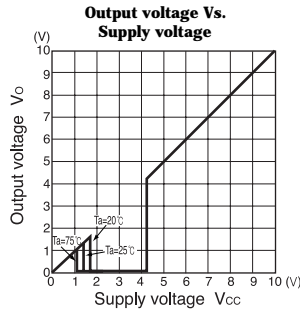
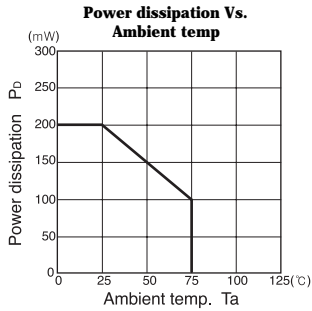
**ELECTRO-OPTICAL CHARACTERISTICS**

(V<sub>c</sub>=5V, Ta=25 )

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Detecting Voltage	V <sub>s</sub>	R <sub>L</sub> = 470 Ω, V <sub>cc</sub> = H, V <sub>OL</sub> = 0.4V	4.3	4.5	4.7	V
			4.0	4.2	4.4	
			3.7	3.9	4.1	
			3.4	3.6	3.8	
			3.1	3.3	3.5	
			2.9	3.1	3.3	
			2.75	2.9	3.05	
			2.55	2.7	2.85	
			2.35	2.5	2.65	
			2.15	2.3	2.45	
Hysteresis voltage	V <sub>s</sub>	R <sub>L</sub> = 470 Ω, V <sub>cc</sub> = L, V <sub>OL</sub> = L	40	100	300	mV
Temperature coefficient of detecting voltage	V <sub>s</sub> / T	R <sub>L</sub> = 470 Ω, Ta = -20 ~ 75	-	±0.01	-	%/°C
Low level output voltage	V <sub>OL</sub>	R <sub>L</sub> = 470 Ω, V <sub>cc</sub> = V <sub>s</sub> Min.	-	0.1	0.4	V
Circuit current at ON	I <sub>CC</sub>	R <sub>L</sub> = 0, V <sub>cc</sub> = V <sub>s</sub> Min.	-	100	180	μA
Circuit current at OFF	I <sub>CC</sub>	R <sub>L</sub> = 0, V <sub>cc</sub> = V <sub>s</sub> Max + 0.1V	-	1.0	2.5	μA
Threshold operating voltage	V <sub>OPL</sub>	R <sub>L</sub> = 4.7k Ω, V <sub>OL</sub> = 0.4V	-	1.4	1.6	V
Output current at ON 1	I <sub>OL</sub> 1	R <sub>L</sub> = 0, V <sub>cc</sub> = V <sub>s</sub> Min.	10	20	-	mA
Output current at ON 2	I <sub>OL</sub> 2	R <sub>L</sub> = 0, Ta = -20 ~ 75	5	-	-	mA
Transmission delay time	t <sub>PLH</sub>	R <sub>L</sub> = 4.7k Ω, C <sub>L</sub> = 100pF	-	100	500	μsec
Transmission delay time	t <sub>PHL</sub>	R <sub>L</sub> = 4.7k Ω, C <sub>L</sub> = 100pF	-	10	20	μsec

# System Reset IC

## BMR - 0301



Vcc: V  
 VS<sub>CPU</sub>: Reset threshold voltage of CPU/MPU  
 CL: µF  
 RL: kΩ  
**Caution** It is desirable that Capacitor be built between ① and ② terminal when high impedance of Vcc line, unstable power line or high ripple occurrence to expected.