

# **OVERVIEW**

The SM5168BAV is a PLL ICs fabricated in NPC's Molybdenum-gate CMOS process. This is designed for use in transmitter/receiver stages in mobile telephones and similar applications.

And it built in LD pin of lock detect signal output.

## **FEATURES**

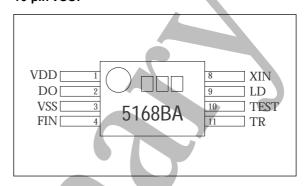
- 2.7 to 3.3 V operation
- 300 MHz maximum operating frequency (V<sub>DD</sub> = 2.7 V)
- Low power consumption
- Charge pump outputs for passive filter
- Lock detect pin
- Power-save pin for reduced power dissipation
- -30 to 85 °C operating temperature range
- 8-pin VSOP
- Molybdenum-gate CMOS process

### **APPLICATIONS**

- Mobile communications
- PHS-type portable telephones
- Similar applications

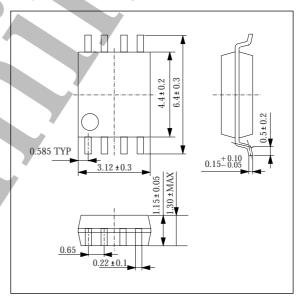
## **PINOUT**

## 16-pin VSOP



# PACKAGE DIMENSIONS

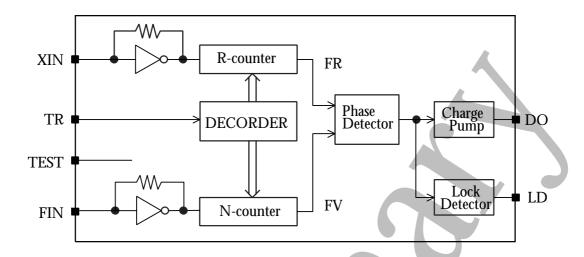
### Unit: mm



# **Setting Frequency**

TR	XIN reference input frequency	Reference divider count.	FIN input frequency	FIN divider count.	Phase comparator frequency
HIGH	14.4MHz	72	185.2MHz	926	200kHz
LOW	14.4MHz	72	260.2MHz	1301	200kHz

## **BLOCK DIAGRAM**



### PIN DESCRIPTION

Number	Name	I/O	Description	
1	VDD	-	2.7 to 3.3V suppply voltage pin.	
2	DO	0	PLL phase comparator tristate output pin.  Built-in charge pump means that this output can be connected to a low-pass filter. The output polarity is preset for connection to a passive filter.	
3	VSS	-	Ground pin	
4	FIN	I	PLL comparator frequency divider input pin. Feedback resistor built-in for AC-coupled inputs.	
5	TR	1		
6	TEST	- 1	Test pin. should be Open or V <sub>SS</sub>	
7	LD	0	Unlock signal output pin. Low when unlock.	
8	XIN		PLL reference frequency divider input pin. Feedback resistor built-in for AC-coupled inputs.	

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