

TOSHIBA BIPOLEAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA75064P, TA75064F

QUAD OPERATIONAL AMPLIFIER

The TA75064P and TA75064F are J-FET input low-power operational amplifiers with low input bias and offset current and fast slew rate.

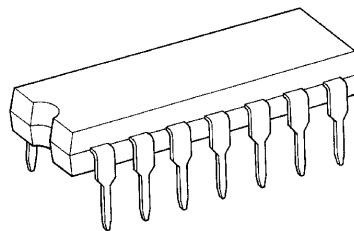
The TA75064P is pin compatible with the TA75902P and 324. The TA75064F is mini-flat package.

The TA75064P series are excellent choice for active filters, integrators, buffers and sample-and-hold circuits.

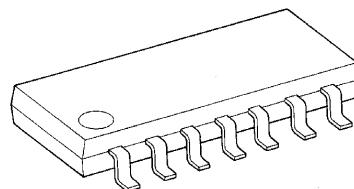
FEATURES

- Low Supply Current : 1.0mA Max.
- Low Input Bias Current : 400pA Max.
- Low Input Offset Current : 200pA Max.
- High Slew Rate : 3.5V / μ s
- Wide Supply Voltage Range : $\pm 2 \sim \pm 18$ V
- Internal Frequency Compensation
- Output Short Circuit Protection

TA75064P

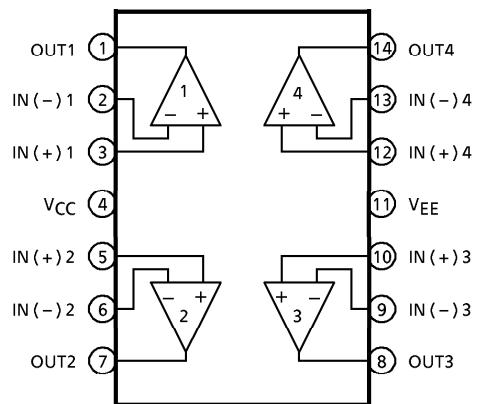
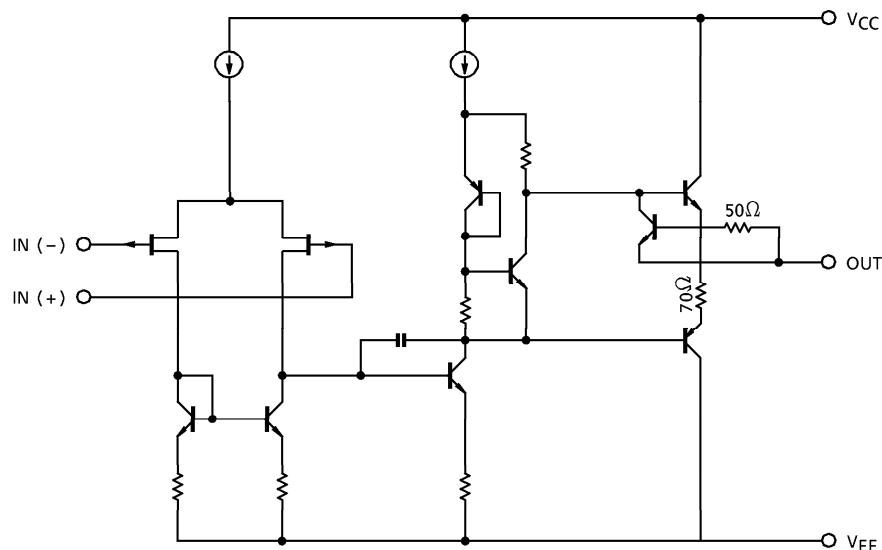


TA75064F



Weight

DIP14-P-300-2.54 : 1.0g (Typ.)
SOP14-P-225-1.27 : 0.2g (Typ.)

PIN CONNECTION (TOP VIEW)**EQUIVALENT CIRCUIT**

MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

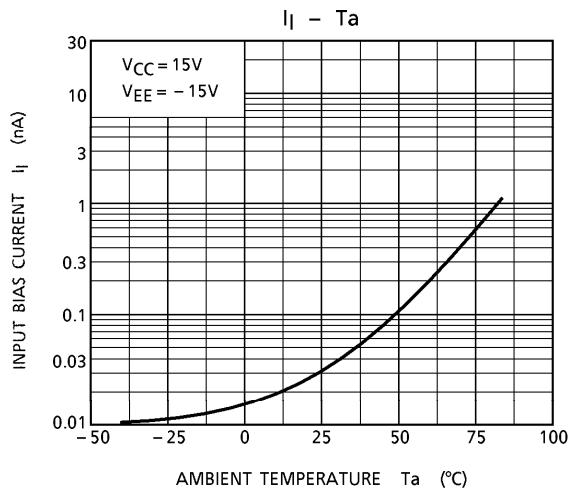
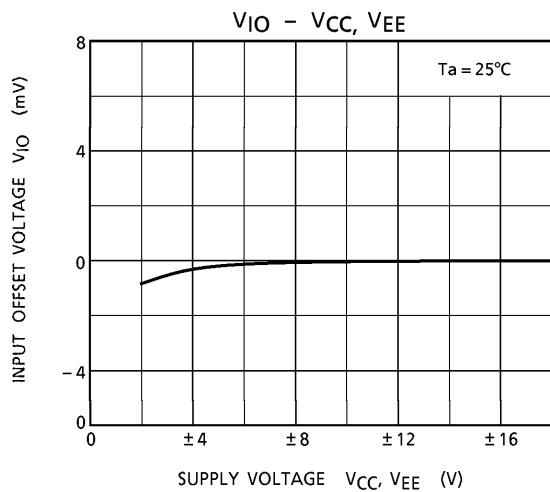
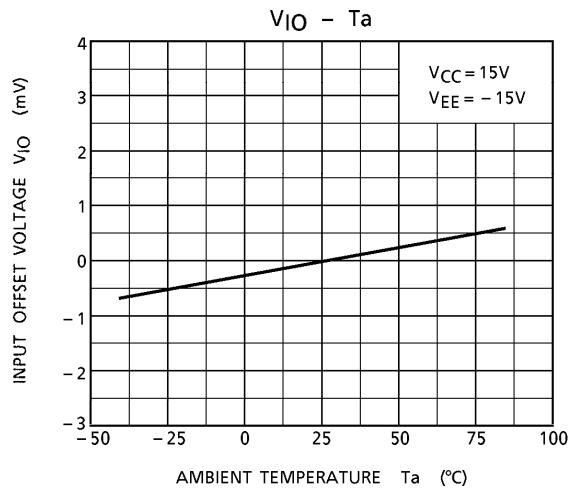
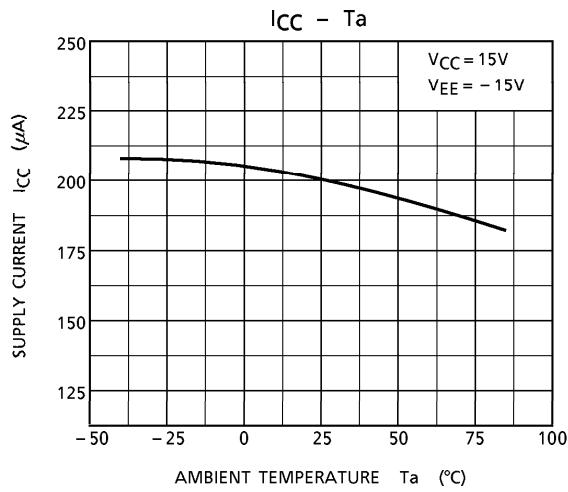
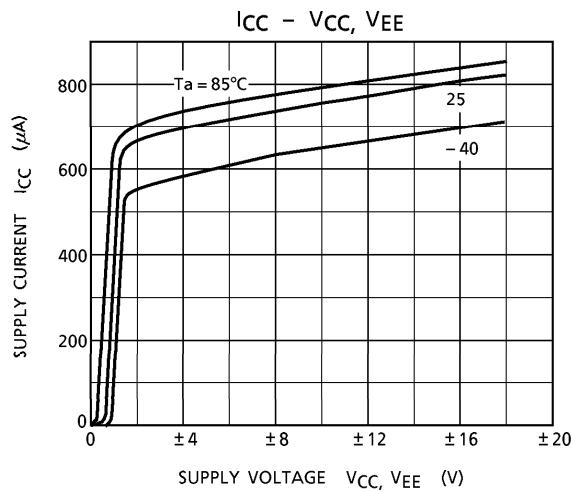
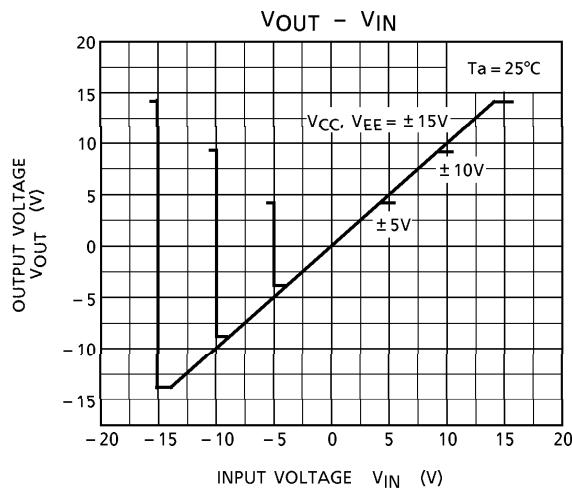
CHARACTERISTIC		SYMBOL	RATING	UNIT	
Supply Voltage		V_{CC}	18	V	
		V_{EE}	- 18		
Differential Input Voltage		DV_{IN}	± 30	V	
Input Voltage		V_{IN}	± 15	V	
Power Dissipation	TA75064P	P_D	625	mW	
	TA75064F		280		
Operating Temperature		T_{opr}	- 40~85	°C	
Storage Temperature		T_{stg}	- 55~125	°C	

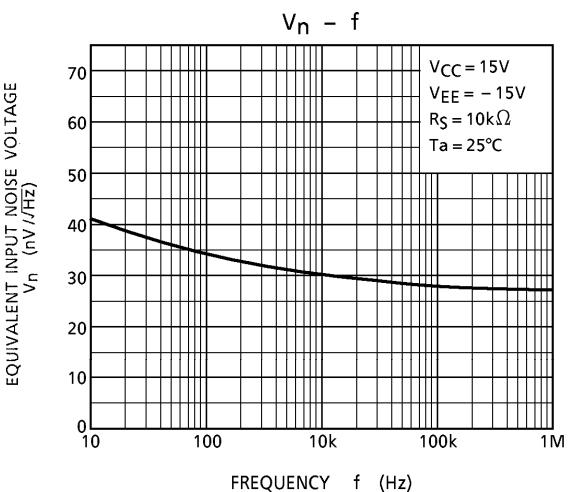
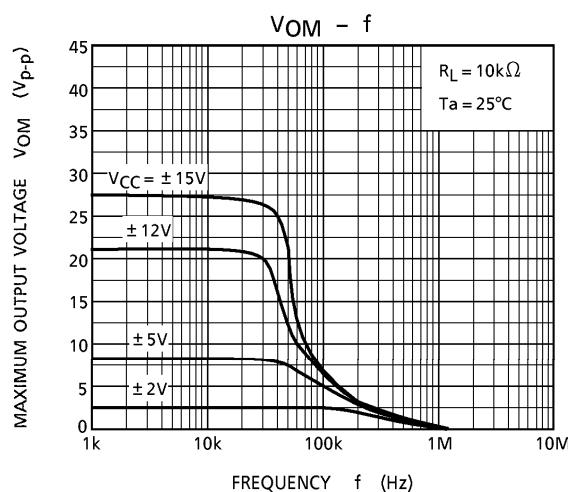
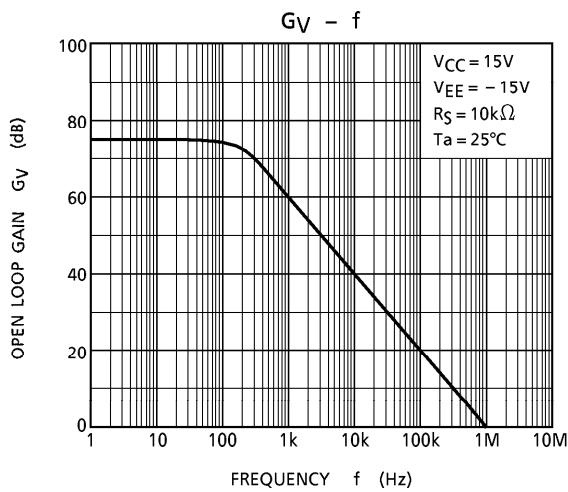
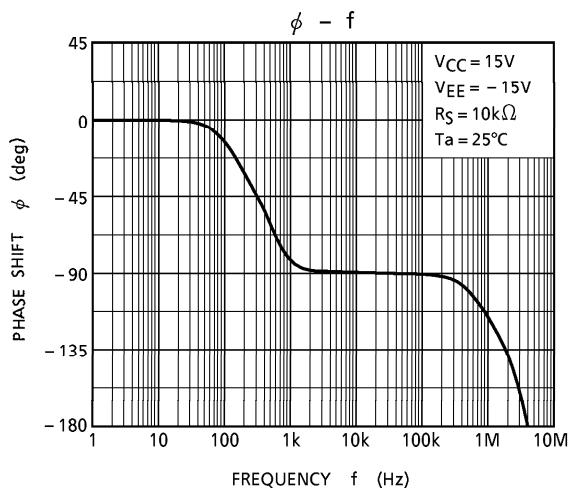
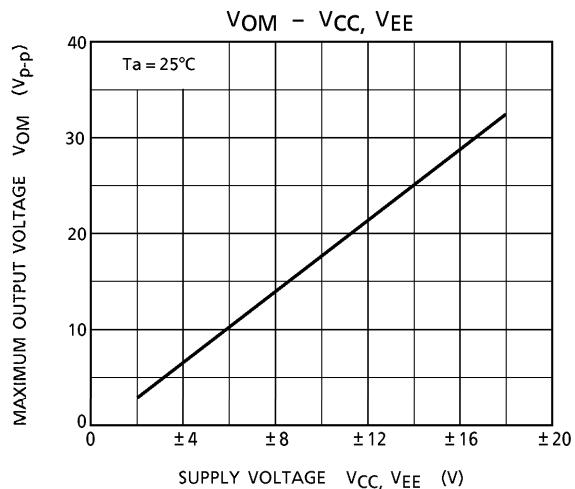
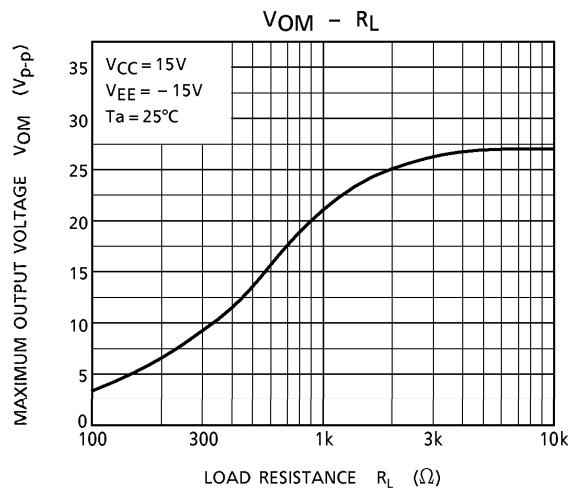
ELECTRICAL CHARACTERISTICS ($V_{CC} = 15\text{V}$, $V_{EE} = - 15\text{V}$, $T_a = 25^\circ\text{C}$)

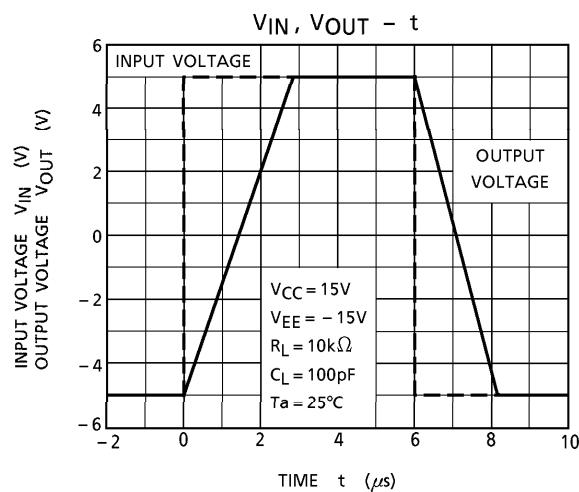
CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Input Offset Voltage	V_{IO}	—	$R_g \leq 10\text{k}\Omega$	—	3	15	mV
TC of Input Offset Voltage	TCV_{IO}	—	—	—	10	—	$\mu\text{V}/^\circ\text{C}$
Input Offset Current	I_{IO}	—	—	—	5	200	pA
Input Bias Current	I_I	—	—	—	30	400	pA
Common Mode Input Voltage	CMV_{IN}	—	—	± 11.5	± 12	—	V
Maximum Output Voltage	V_{OM}	—	$R_L = 10\text{k}\Omega$	20	27	—	$\text{V}_{\text{p-p}}$
Voltage Gain (Open Loop)	G_V	—	$V_{OUT} = \pm 10\text{V}$, $R_L = 10\text{k}\Omega$	3	6	—	V / mV
Unity Gain Cross Frequency	f_T	—	Open Loop, $R_L = 10\text{k}\Omega$	—	1	—	MHz
Input Resistance	R_{IN}	—	—	—	10^{12}	—	Ω
Common Mode Input Signal Rejection Ratio	$CMRR$	—	$R_g \leq 10\text{k}\Omega$	70	76	—	dB
Supply Voltage Rejection Ratio	$SVRR$	—	$R_g \leq 10\text{k}\Omega$	70	76	—	dB
Supply Current	I_{CC}, I_{EE}	—	Non load	—	800	1000	μA
Cross Talk		—	—	—	- 120	—	dB

OPERATING CHARACTERISTICS ($V_{CC} = 15\text{V}$, $V_{EE} = - 15\text{V}$, $T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Slew Rate	SR	—	$V_{IN} = 10\text{V}_{\text{p-p}}$, $R_L = 10\text{k}\Omega$ $C_L = 100\text{pF}$	—	3.5	—	$\text{V}/\mu\text{s}$
Equivalent Input Noise Voltage	V_n	—	$R_S = 100\Omega$, $f = 1\text{kHz}$	—	42	—	$\text{nV}/\sqrt{\text{Hz}}$

CHARACTERISTIC

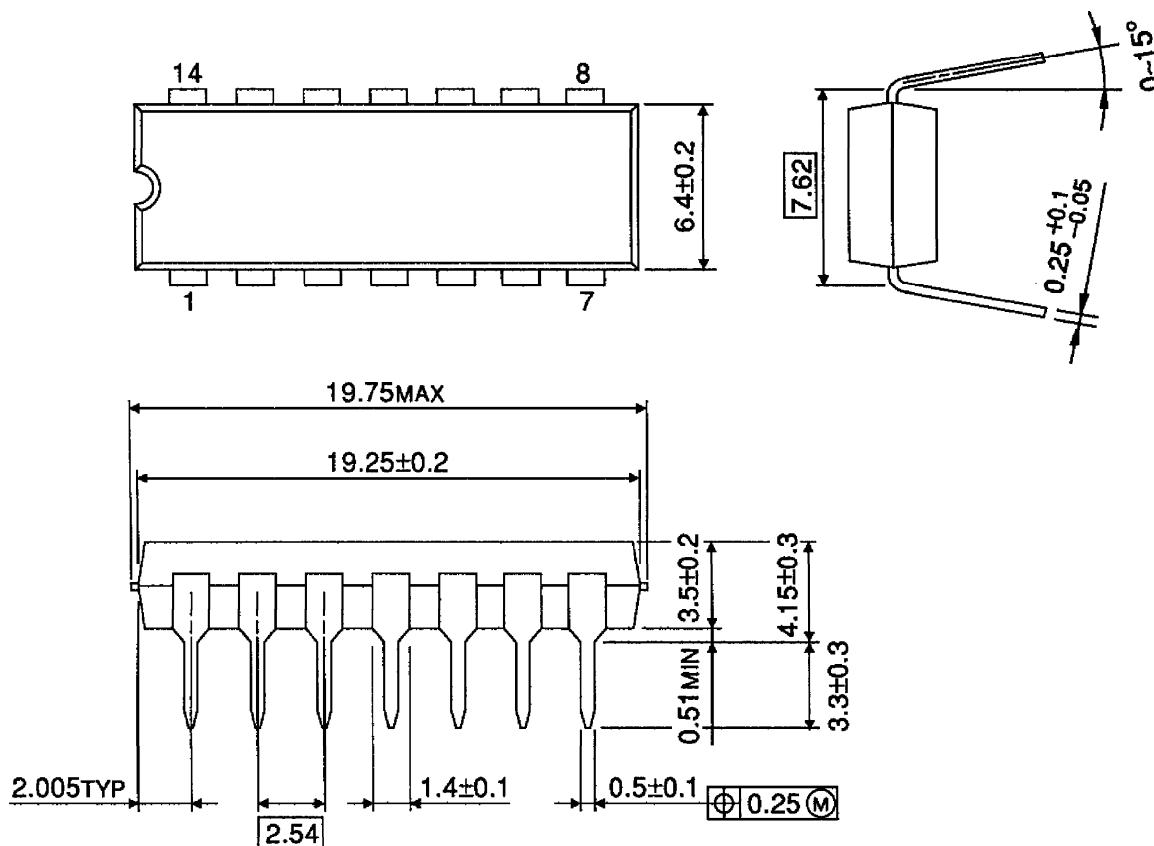




PACKAGE DIMENSIONS

DIP14-P-300-2.54

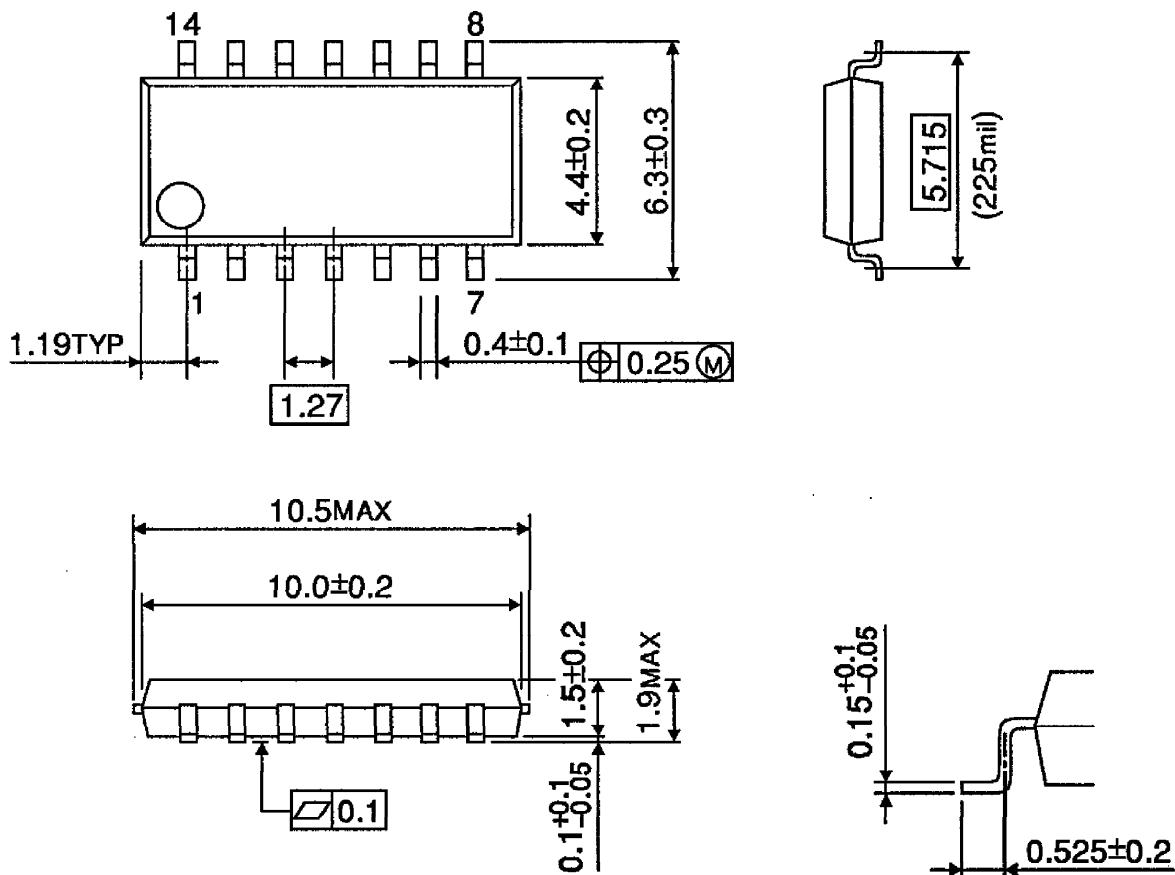
Unit : mm



Weight : 1.0g (Typ.)

PACKAGE DIMENSIONS
SOP14-P-225-1.27

Unit : mm



Weight : 0.2g (Typ.)

RESTRICTIONS ON PRODUCT USE

000707EBA

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