

TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA75064P, TA75064F

QUAD OPERATIONAL AMPLIFIER

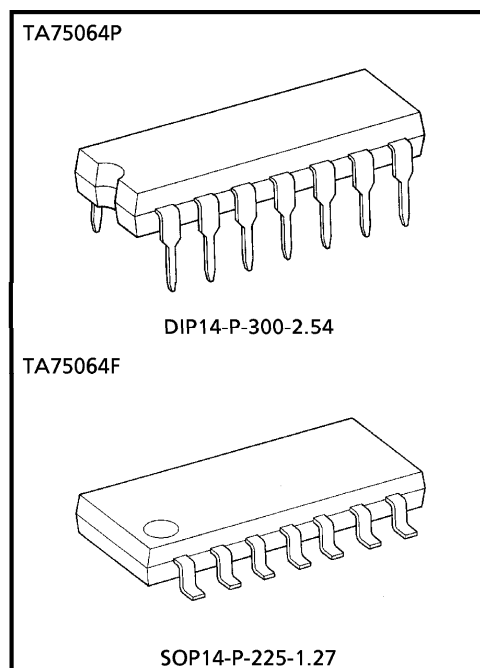
The TA75064P and TA75064F are J-FET input low-power operational amplifiers with low input bias and offset current and fast slew rate.

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.

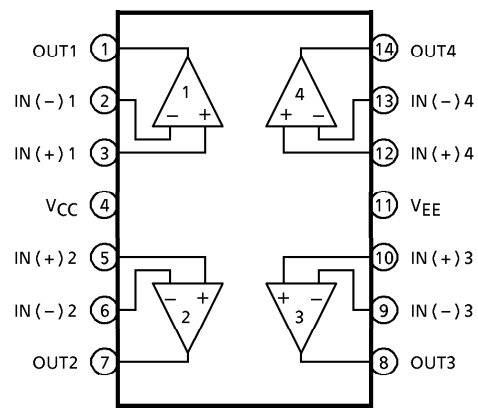
FEATURES

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

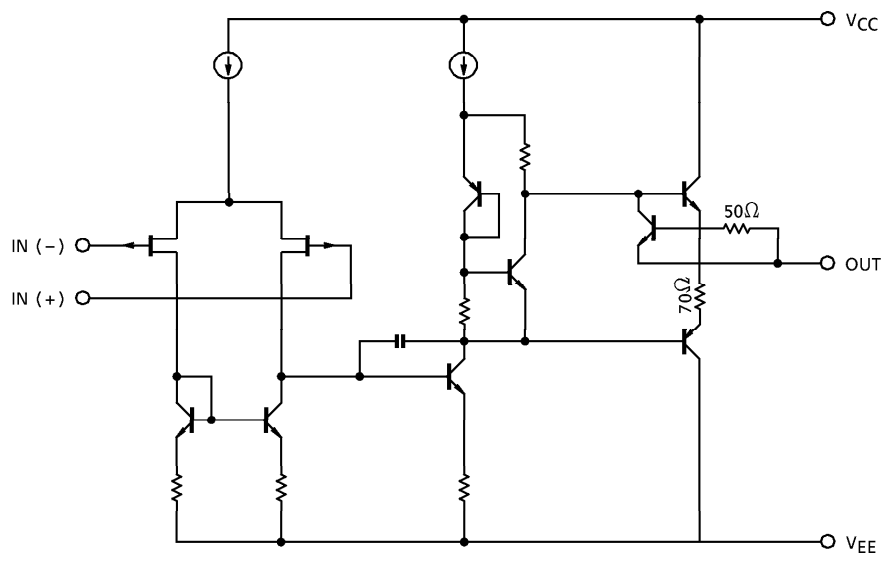


Weight
DIP14-P-300-2.54 : 1.0g (Typ.)
SOP14-P-225-1.27 : 0.2g (Typ.)

PIN CONNECTION (TOP VIEW)



EQUIVALENT CIRCUIT



MAXIMUM RATINGS (Ta = 25°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

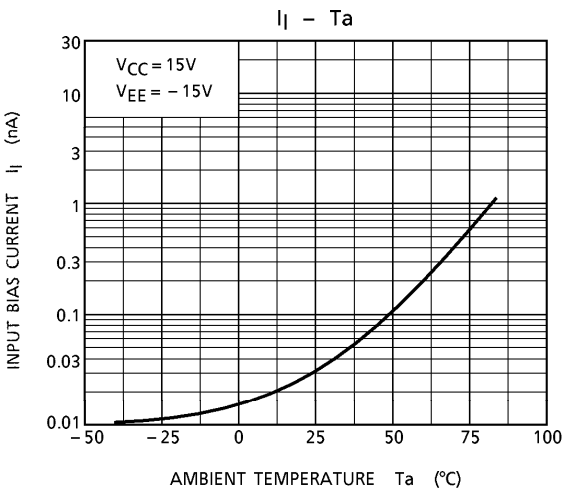
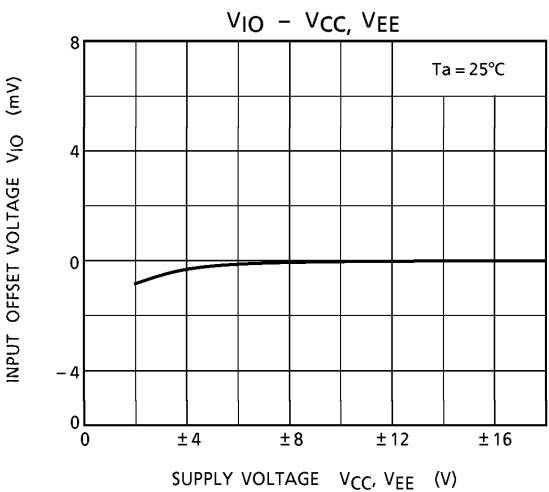
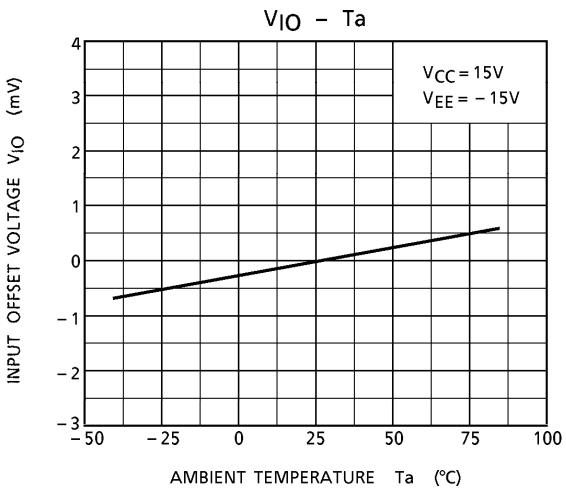
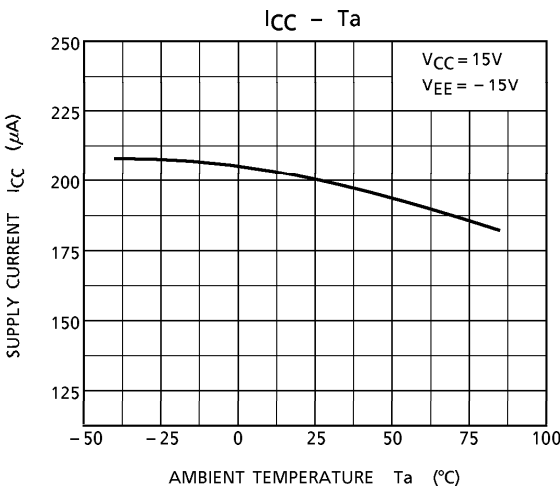
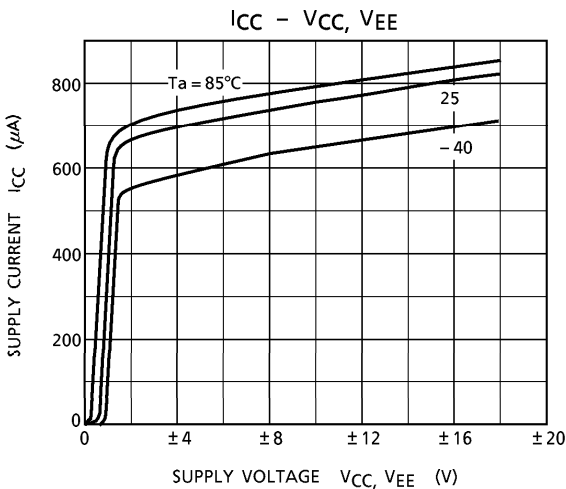
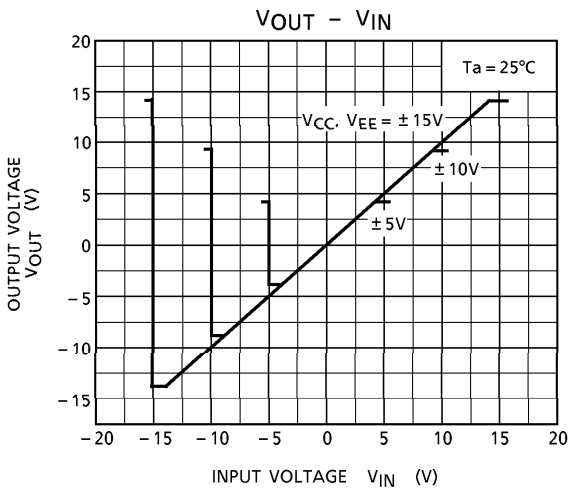
ELECTRICAL CHARACTERISTICS (V_{CC} = 15V, V_{EE} = – 15V, Ta = 25°C)

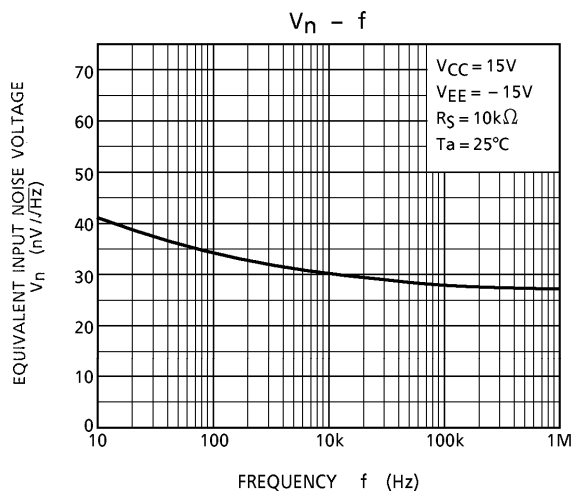
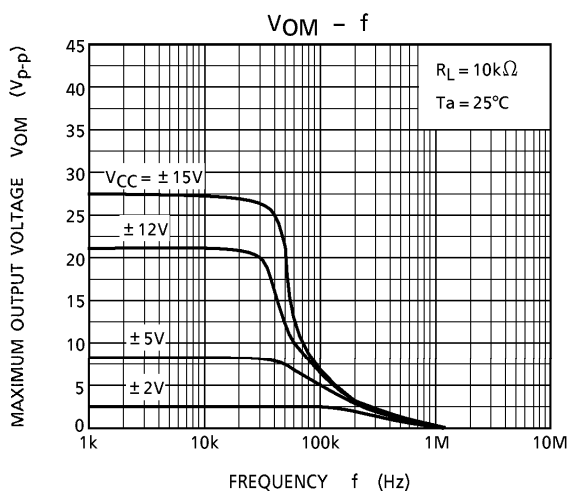
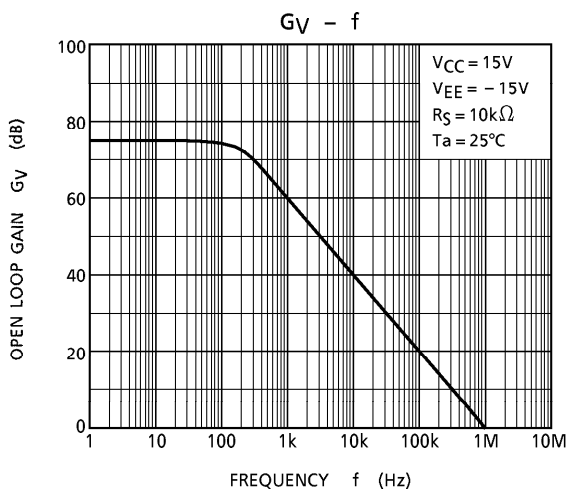
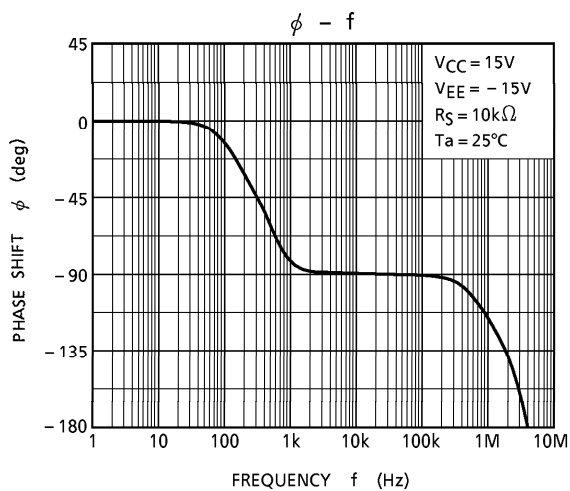
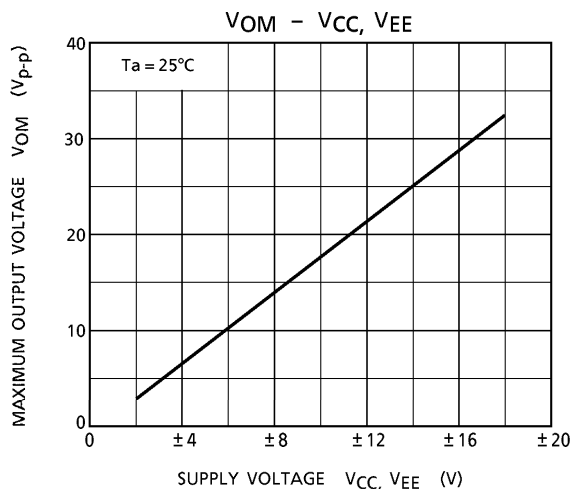
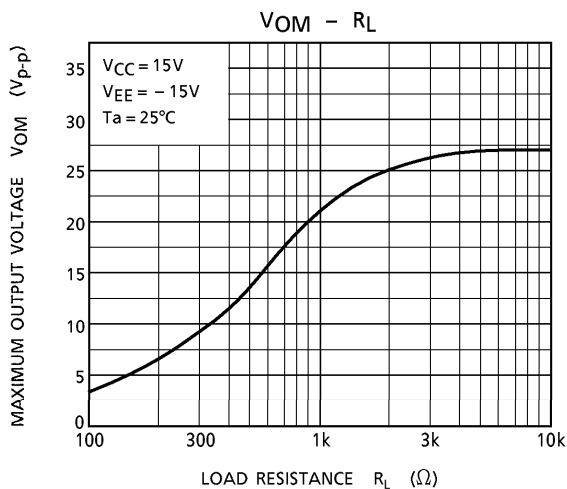
CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Input Offset Voltage	V _{IO}	—	R _g ≤ 10kΩ	—	3	15	mV
TC of Input Offset Voltage	TCV _{IO}	—	—	—	10	—	μV/°C
Input Offset Current	I _{IO}	—	—	—	5	200	pA
Input Bias Current	I _I	—	—	—	30	400	pA
Common Mode Input Voltage	CMV _{IN}	—	—	± 11.5	± 12	—	V
Maximum Output Voltage	V _{OM}	—	R _L = 10kΩ	20	27	—	V _{p-p}
Voltage Gain (Open Loop)	G _V	—	V _{OUT} = ± 10V, R _L = 10kΩ	3	6	—	V / mV
Unity Gain Cross Frequency	f _T	—	Open Loop, R _L = 10kΩ	—	1	—	MHz
Input Resistance	R _{IN}	—	—	—	10 ¹²	—	Ω
Common Mode Input Signal Rejection Ratio	CMRR	—	R _g ≤ 10kΩ	70	76	—	dB
Supply Voltage Rejection Ratio	SVRR	—	R _g ≤ 10kΩ	70	76	—	dB
Supply Current	I _{CC} , I _{EE}	—	Non load	—	800	1000	μA
Cross Talk		—	—	—	– 120	—	dB

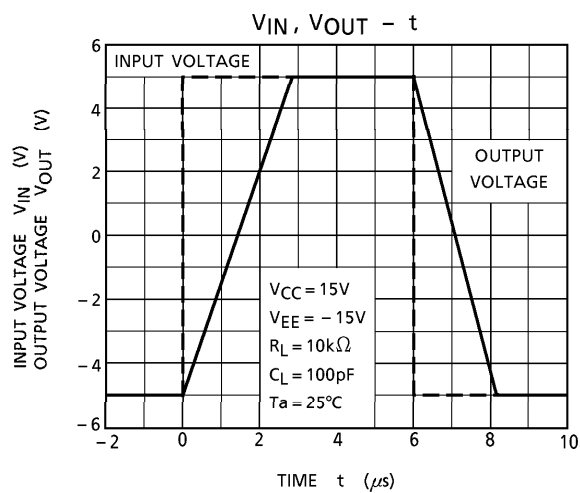
OPERATING CHARACTERISTICS (V_{CC} = 15V, V_{EE} = – 15V, Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Slew Rate	SR	—	V _{IN} = 10V _{p-p} , R _L = 10kΩ C _L = 100pF	—	3.5	—	V / μs
Equivalent Input Noise Voltage	V _n	—	R _S = 100Ω, f = 1kHz	—	42	—	nV / √Hz

CHARACTERISTIC

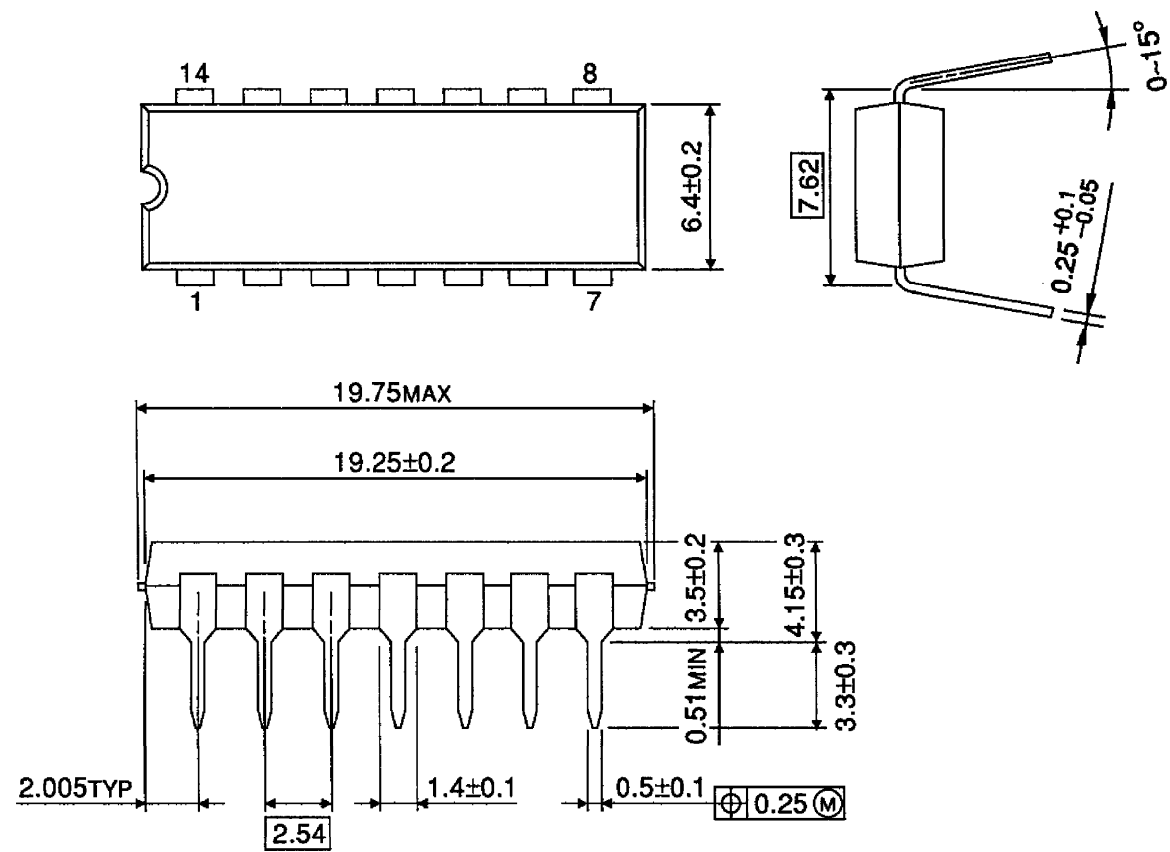






PACKAGE DIMENSIONS
DIP14-P-300-2.54

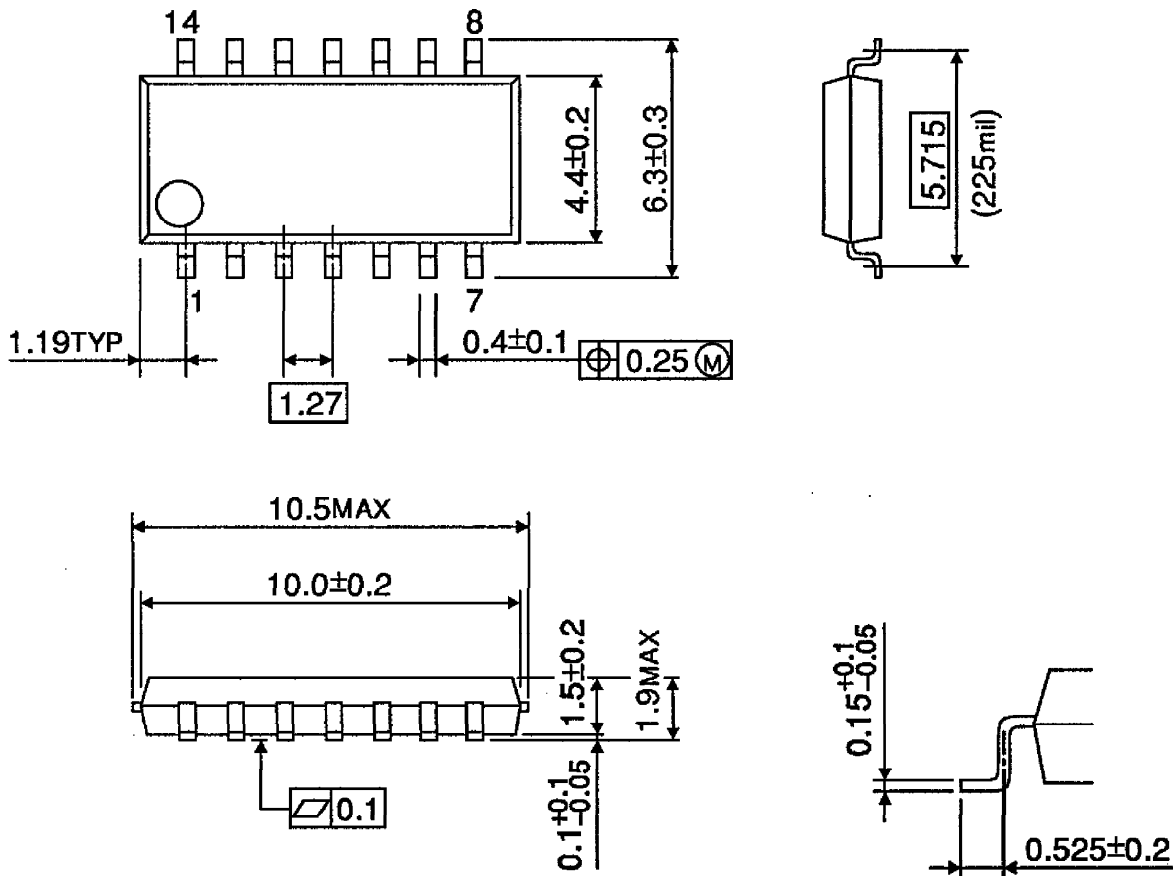
Unit : mm



Weight : 1.0g (Typ.)

PACKAGE DIMENSIONS
SOP14-P-225-1.27

Unit : mm



Weight : 0.2g (Typ.)

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000707EBA

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