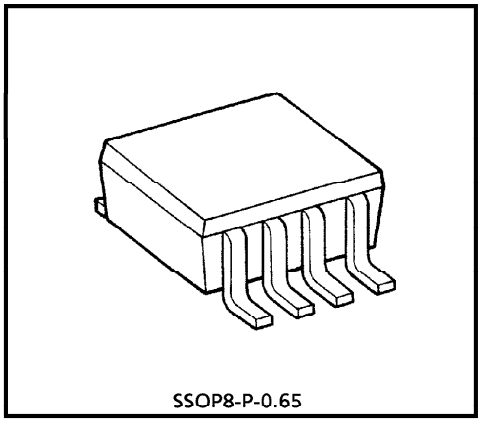
TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA75W558FU

DUAL OPERATIONAL AMPLIFIER

TA75W558FU is a low-noise monolithic precision operational amplifier.



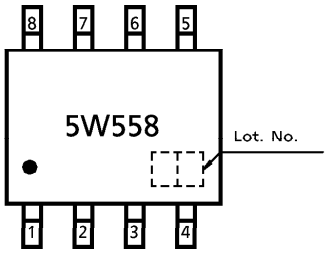
SSOP8-P-0.65

Weight : 0.021g (Typ.)

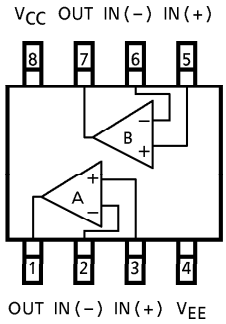
FEATURES

- Internal Frequency Compensation Type.
- Pin Compatible with TA75W01FU.
- Wide Band Range : $f_T = 3MHz$ (Typ.)
- Noise Voltage Range : $V_{NI} = 2.5\mu V_{rms}$ (Typ.)
- Power Supply Range : $\pm 4V_{DC}$ to $\pm 18V_{DC}$
- Suitable Application for Active Filter Equalizer Amplifier and Headphone Amplifier.

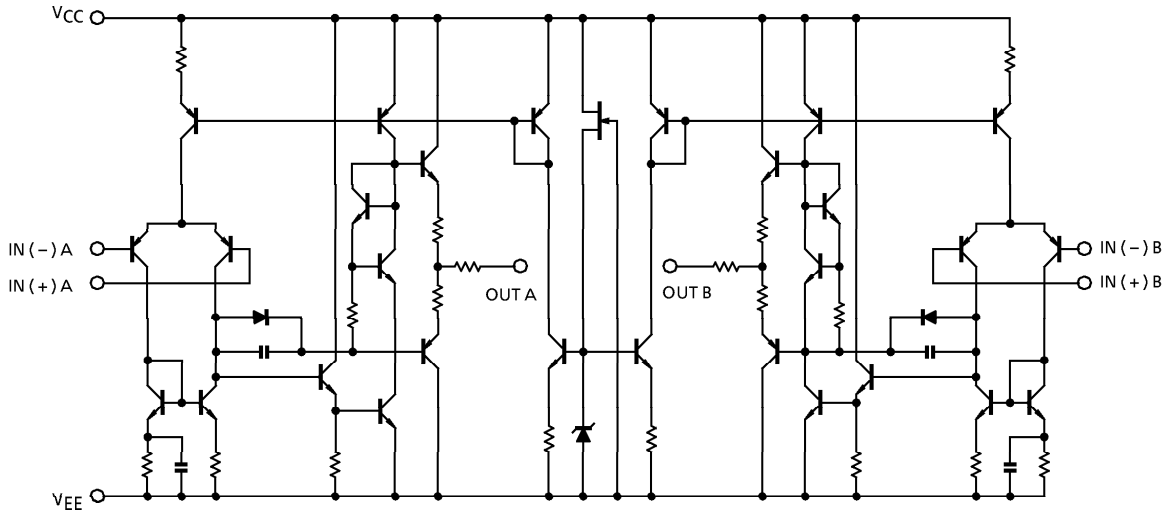
MARKING (TOP VIEW)



PIN CONNECTION (TOP VIEW)



EQUIVALENT CIRCUIT



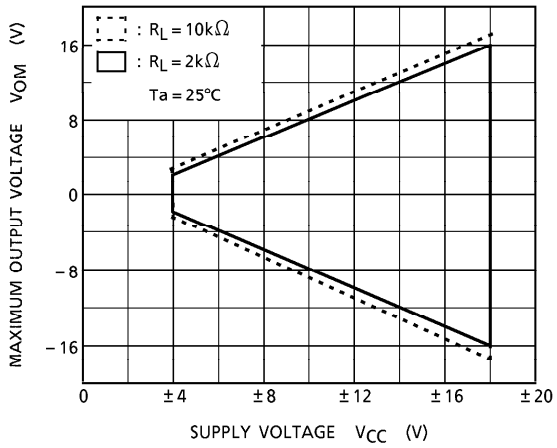
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}, V_{EE}	±18	V
Differential Input Voltage	DV_{IN}	±30	V
Input Voltage	V_{IN}	V_{EE}~V_{CC}	V
Power Dissipation	P_D	250	mW
Operating Temperature	T_{opr}	−40~85	°C
Storage Temperature	T_{stg}	−55~125	°C

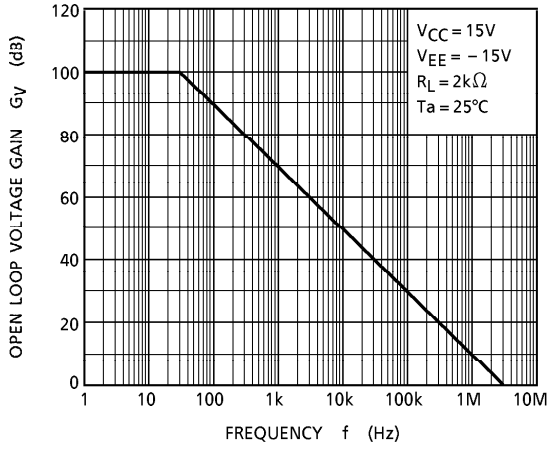
ELECTRICAL CHARACTERISTICS (V_{CC} = 15V, V_{EE} = − 15V, Ta = 25°C)

CHARACTERISTICS	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Input Offset Voltage	V_{IO}	—	Rg ≦ 10kΩ	—	0.5	6	mV
Input Offset Current	I_{IO}	—	—	—	5	200	nA
Input Bias Current	I_I	—	—	—	60	500	nA
Common Mode Input Voltage	CMV_{IN}	—	—	± 12	± 14	—	V
Maximum Output Voltage	V_{OM}	—	R_L = 10kΩ	± 12	± 14	—	V
	V_{OMR}	—	R_L = 2kΩ	± 10	± 13	—	
Source Current	I_{source}	—	—	—	40	—	mA
Sink Current	I_{sink}	—	—	—	40	—	mA
Voltage Gain (Open Loop)	G_V	—	V_{OUT} = ± 10V, R_L = 2kΩ	86	100	—	dB
Common Mode Input Signal Rejection Ratio	CMRR	—	Rg ≦ 10kΩ	70	90	—	dB
Supply Voltage Rejection Ratio	SVRR	—	Rg ≦ 10kΩ	—	30	150	μV / V
Slew Rate	SR	—	G_V = 1, R_L = 2kΩ	—	1.0	—	V / μs
Unity Gain Cross Frequency	f_T	—	—	—	3.0	—	MHz
Supply Current	I_{CC}	—	—	—	4.0	6.0	mA
Equivalent Input Noise Voltage	V_{NI}	—	R_S = 1kΩ, f = 30Hz~30kHz	—	2.5	—	μV_{rms}

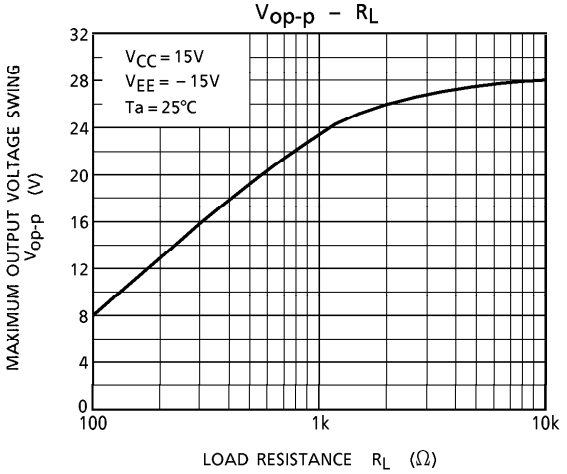
V_{OM} – V_{CC}



G_V – f



V_{op-p} – R_L



P_D – Ta