Replacement of
LM358

Dual Operational Amplifier

MIK358 revised September 2002

Electrical characteristics

at specified free-air temperature, Vcc = 5 V (unless otherwise noted)

Symbol	Parameter	Test conditions*		MIK358			Units
				Min	Typ	Max	
V_{IO}	Input offset voltage	Vcc = 5 V to MAX, $V_{IC} = V_{ICR}$ min, Vo=1.4 V	25 °C		3	7	mV
			Full range			9	
αV_{IO}	Average temperature coefficient of input offset voltage		Full range		7		µV/°C
I_{IO}	Input offset current	Vo=1.4 V	25 °C		2	50	nA
			Full range			150	
αIIO	Average temperature coefficient of input offset current		Full range		10		pA/°C
I_{IB}	Input bias current	Vo=1.4 V	25 °C		-20	-250	nA
			Full range			-500	
V_{ICR}	Common-mode input voltage range	Vcc = 5 V to MAX	25° C	0 to Vcc-1.5			V
			Full range	0 to Vcc - 2			
V_{OH}	High-level output voltage	$R_L \geq 2$ kΩ	25 °C	Vcc-1.5			V
		Vcc = MAX, R_L=2 kΩ	Full range	26			
		Vcc = MAX, $R_L \geq 10$ kΩ	Full range	27	28		
	V_{OL} Low-level output voltage	$R_L \geq 10$ kΩ	Full range		5	20	mV
A_{VD}	Large-signal differential voltage amplification	Vcc = 15 V, Vo=1V to 11 V, $R_L \geq 2$ kΩ	25 °C	25	100		V/mV
			Full range	15			
CMRR	Common-mode rejection ratio	Vcc = 5 V to MAX, $V_{IC} = V_{ICR}$ min	25 °C	65	80		dB
k_{SVR}	Supply voltage rejection ratio ($\Delta Vcc/\Delta V_{IO}$)	Vcc = 5 V to MAX	25 °C	65	100		dB
Vo1 /Vo2	Crosstalk attenuation	f=1 kHz to 20 kHz	25 °C		120		dB
Io	Output current	Vcc = 15 V, V_{ID}=1 V, V_O= 0	25 °C	-20	-30		mA
			Full range	-10			
		Vcc = 15 V, V_{ID} = - 1 V, Vo = 15 V	25 °C	10	20		
			Full range	5			
		V_{ID} = - 1 V, Vo =200 mV	25 °C	12	30		µA
I_{OS}	Short-circuit output current	Vcc at 5 V, GND at -5 V, Vo=0	25 °C		±40	±60	mA
I_{CC}	Supply current (two amplifiers)	Vo - 2.5 V, No load	Full range		0.7	1.2	mA
		Vcc = MAX, Vo = 0.5Vcc, No load	Full range		1	2	

- All characteristics are measured under open-loop conditions with zero common-mode input voltage unless otherwise specified. "MAX" V_{CC} for testing purposes is 30 V. Full range is 0 °C to 70 °C.

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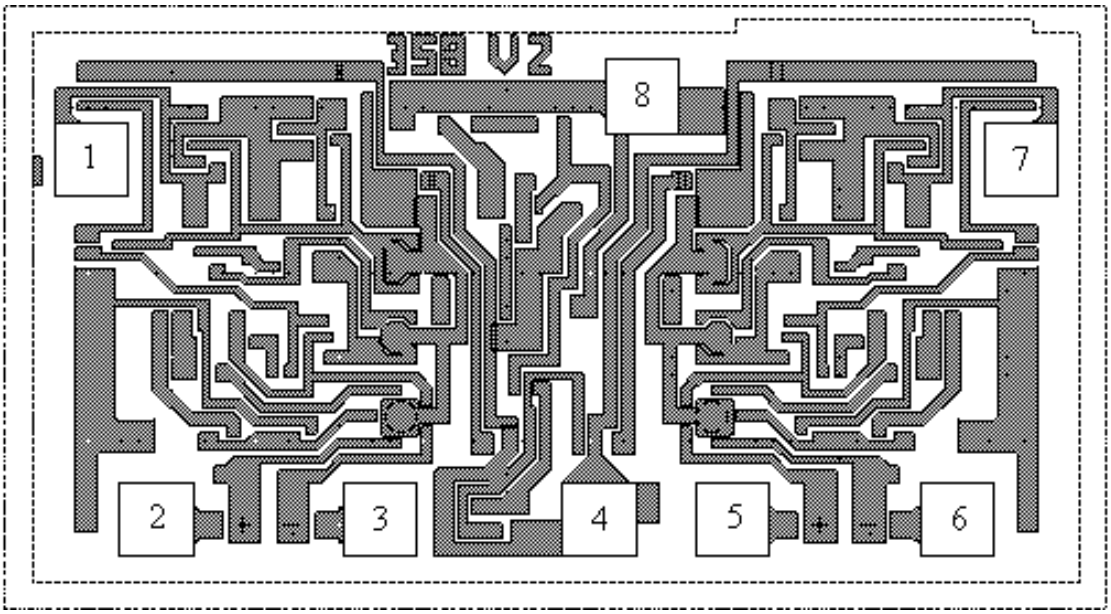
Pad Location MIK358



Chip Size: 1.65 x 0.9 mm

Pad Location Coordinates

Pad N	Pad Name	Coordinates, µm	
		X	Y
1	#1 OUT	85	625
2	#1 IN-	182	88
3	#1 IN+	518	88
4	GND	845	88
5	#2 IN+	1045	88
6	#2 IN-	1381	88
7	#2 OUT	1478	625
8	V_{CC}	909	720