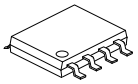
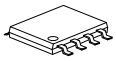
ULTRA WIDE BAND, HIGH SLEW RATE SINGLE OPERATIONAL AMPLIFIER



SOP-8



TSSOP-8

■ DESCRIPTION

The UTC **M2136** is ultra fast single operational amplifiers with low operating voltage (±1.35V) designed for applications requiring wide bandwidth and high slew rate.

Because of low operating voltage and low operating current，it is also apply to portable communication items.

The high speed of this operational amplifier make them useful in high speed analog and digital signal processor, line driver and active filters, HDTV, industrial measurement equipment and others.

■ FEATURES

*Input Offset Voltage Balance
*Operating Voltage: ±1.35V ~ ±6V
*Uitra Wide Band: 200MHz Typ.
*High Slew Rate: 45V/μs Typ.
*Low Operating Current: 0.63mA Typ.

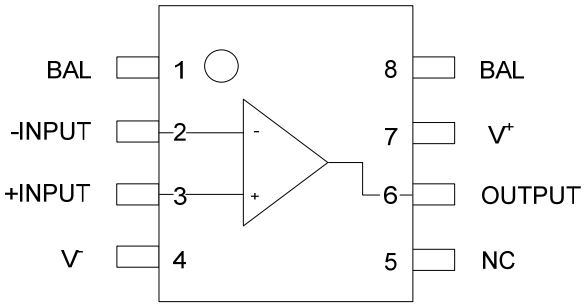
■ ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
M2136L-S08-R	M2136G-S08-R	SOP-8	Tape Reel
M2136L-S08-T	M2136G-S08-T	SOP-8	Tube
M2136L-P08-R	M2136G-P08-R	TSSOP-8	Tape Reel

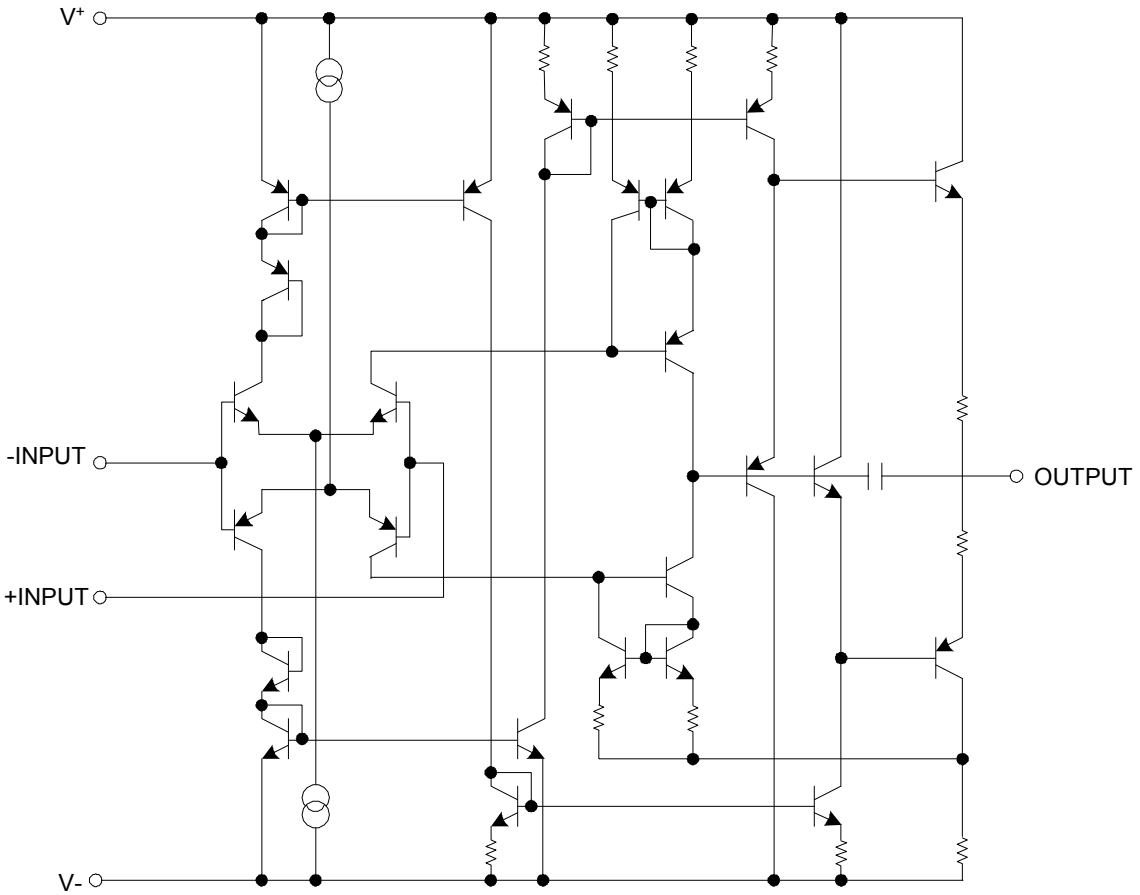
M2136L-S08-R
(1)Packing Type
(2)Package Type
(3)Free Free

(1) R: Tape Reel, T: Tube
(2) S08: SOP-8, P08: TSSOP-8
(3) G: Halogen Free, L: Lead Free

■ PIN CONFIGURATION



■ EQUIVALENT CIRCUIT



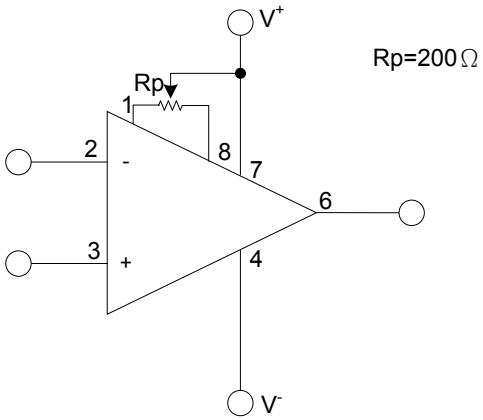
■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Supply Voltage		V^+/V^-	±6.75	V
Differential Input Voltage		V_{ID}	±3	V
Power Dissipation	TSSOP-8	P_D	250	mV
	SOP-8		300	
Ambient Operating Temperature		T_{OPR}	-40～+85	°C
Storage Temperature		T_{STG}	-50～+125	°C

■ ELECTRICAL CHARACTERISTICS (V+/V-=±2.5V,Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Operating Voltage	V^+/V^-		±1.35	±2.50	±6.00	V
Input Offset Voltage	VIO	Rs≤0Ω		1.0	5.0	mV
Input Bias Current	IB			0.5	2.0	μA
Input Offset Current	IIO			20	200	nA
Large Signal Voltage Gain	Av	RL≥10kΩ	65	75		dB
Input Common Mode Voltage Range	VICM		1.2	1.5		V
			-1.2	-1.5		
Common Mode Rejection Ratio	CMR	-1V ≤ Vcm ≤ +1V	45	60		dB
Supply Voltage Rejection Ratio	+SVR		70	100		dB
	-SVR		50	60		
Maximum Output Voltage Swing	VOM	R_L=1kΩ	1.1	1.4		V
			-0.9	-1.2		
Operating Current	Icc	R_L=∞(all Amp.)		0.63	0.82	mA
Slew Rate	SR	Av = 0 dB		45		V/μs
Gain-Bandwidth Product	GB	60dB・500kHz	120	200		MHz
Phase Margin	ΦM	40dB		25		deg
Unity Gain-Bandwidth	fT	40dB		40		MHz

■ OFFSET ADJUSTMENT METHOD



Note: The electrical characteristics change a little, in case the Rp is connected.