

UNISONIC TECHNOLOGIES CO., LTD

M2115

LINEAR INTEGRATED CIRCUIT

DUAL OPERATIONAL AMPLIFIER

DESCRIPTION

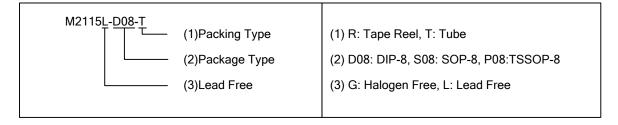
The UTC M2115 is a low operating Voltage(±1.0V min.) and low saturation output voltage(±2.0V p-p at supply voltage ±2.5V) operational amplifier. It is applicable to handy type CD, radio cassete CD, and portable DAT, that are digital audio apparatus which require the 5V single supply operation and high output voltage. The UTC M2115 is improved version of the UTC M2100 about BIAS-CIRCUIT. So the UTC M2115 is low saturation compared to the UTC M2100 under the condition of low supply voltage(<±2.5V).The UTC M2115 is stable about the oscillation compared to the UTC M2100 under the condition of V+/V- >2.5V.

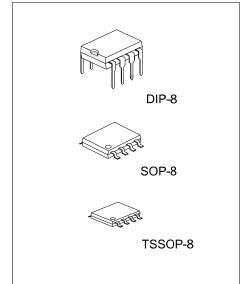
FEATURES

- * Operating Voltage: ±1V ~±7V
- * Low Saturation Output Voltage: ±2.0Vp-p@V+=±2.5V
- * Slew Rate: 4V/µs (typ.)
- * Unity Gain Bandwidth: 12MHz (typ.)

ORDERING INFORMATION

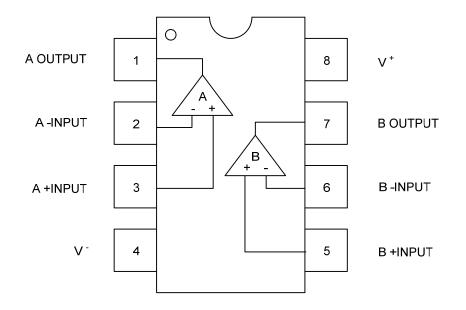
Ordering Number		Deekees	Deaking	
Lead Free	Halogen Free	Package	Packing	
M2115L-D08-T	M2115G-D08-T	DIP-8	Tube	
M2115L-S08-R	M2115G-S08-R	SOP-8	Tape Reel	
M2115L-S08-T	M2115G-S08-T	SOP-8	Tube	
M2115L-P08-R	M2115G-P08-R	TSSOP-8	Tape Reel	
M2115L-P08-T	M2115G-P08-T	TSSOP-8	Tube	



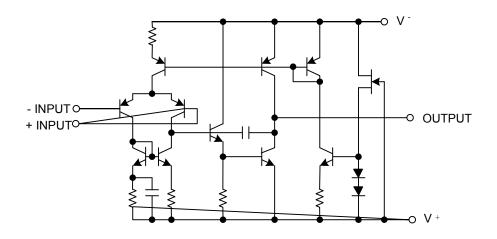


M2115

■ PIN CONFIGURATION



EQUIVALENT CIRCUIT (1/2 Shown)





■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	L RATINGS		
Supply Voltage		V ⁺ /V ⁻ ±7.0		V	
Differential Input Voltage		V _{I(DIFF)}	±14	V	
Power Dissipation	DIP-8		500		
	SOP-8	PD	300	mW	
	TSSOP-8		250		
Operating Temperature		T _{OPR}	-40 ~ +85	°C	
Storage Temperature		T _{STG}	-40 ~ +125	°C	

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (V+/V- =±2.5V, T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Input Offset Voltage	V _{I(OFF)}	Rs≤10kΩ		1	6	mV
Input Bias Current	I _{I(BIAS)}			100	300	nA
Operating Current	Icc	V _{IN} =0,R _L =∞		3.5	5	mA
Maximum Output Voltage Swing	V _{OM}	R _L ≥2.5kΩ	±2	±2.2		V
Input Common Mode Voltage Range	VICM		±1.5			V
Large Signal Voltage Gain	Gv	R _L ≥10kΩ	60	80		dB
Common Mode Rejection Ratio	CMRR		60	74		dB
Supply Voltage Rejection Ratio	SVR		60	80		dB
Slew Rate	SR	V _{IN} =±1V, G _V =1		4		V/µs
Gain Bandwidth product	GB	f=10kHz		12		MHz

Notes: 1. Applied circuit voltage gain is desired to be operated within the range of 3dB to 30dB.

2. Special care being required for input common mode voltage range and the oscillation due to the capacitive load when operating follower.

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