


MOTOROLA

Product Preview

AMAX Stereo Chipset

The MC13027 and MC13122 have been specifically designed for AM radio which can meet the EIA/NAB AMAX requirements. They are essentially the same as the MC13022 and MC13025 with the addition of noise blanking circuitry. The noise blanker consists of a wide band amplifier with an RF switch for blanking ahead the IF Amplifier and a stereo audio blanker with adjustable delay and blanking times.

- Operating Voltage Range of 6.0 V to 10 V
- RF Blanker with Built-In Wide Band AGC Amplifier
- Audio Noise Blanker with Audio Track and Hold
- Mixer Third Order Intercept of 20 dBm
- Wide Band AGC Detector for RF Amplifier
- Local Oscillator Divide-by-4 for Reduced Phase Noise
- Buffered Local Oscillator Output at the Fundamental Frequency
- Fast Stereo Decoder Lock
- Soft Stereo Blend
- Signal Quality Detector for AM Stereo
- Variable Q Notch Filters for Adaptive Audio Bandwidth and Whistle Rejection
- Very Low Distortion Envelope and Synchronous Detectors

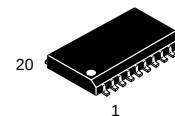
ORDERING INFORMATION

Device	Operating Temperature Range	Package
MC13027DW	$T_A = -40^\circ \text{ to } +85^\circ\text{C}$	SO-20L
MC13122DW		SO-28L

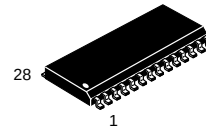
MC13027 MC13122

AMAX STEREO IC CHIPSET

SEMICONDUCTOR TECHNICAL DATA

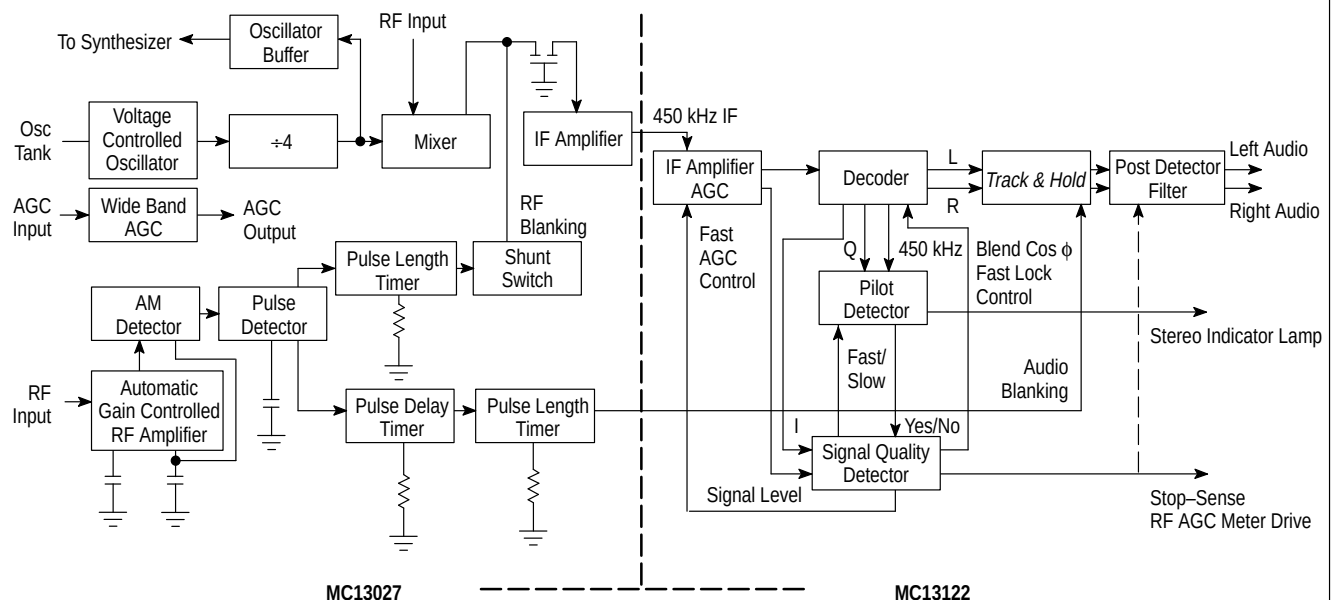

MC13027

DW SUFFIX
PLASTIC PACKAGE
CASE 751D
(SO-20L)


MC13122

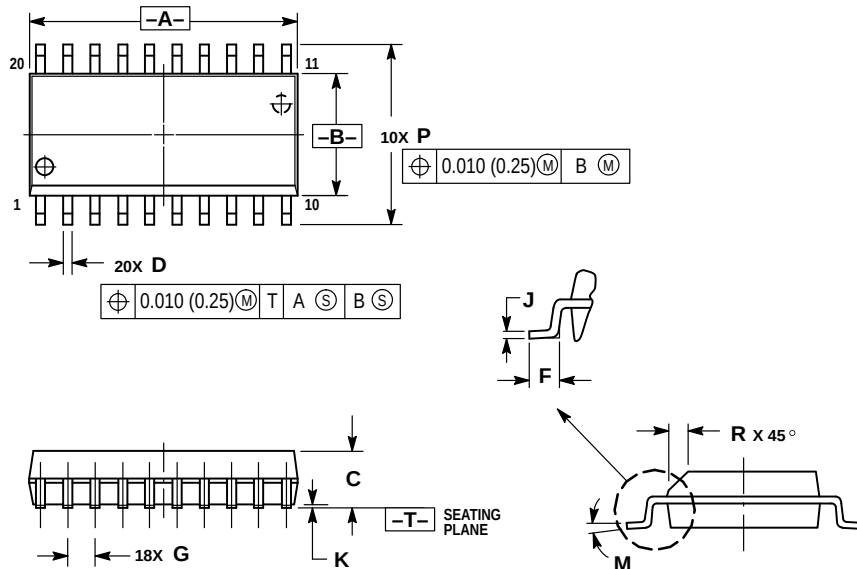
DW SUFFIX
PLASTIC PACKAGE
CASE 751F
(SO-28L)

Functional Block Diagram



OUTLINE DIMENSIONS

DW SUFFIX
PLASTIC PACKAGE
CASE 751D-04
(SO-20L)
ISSUE E

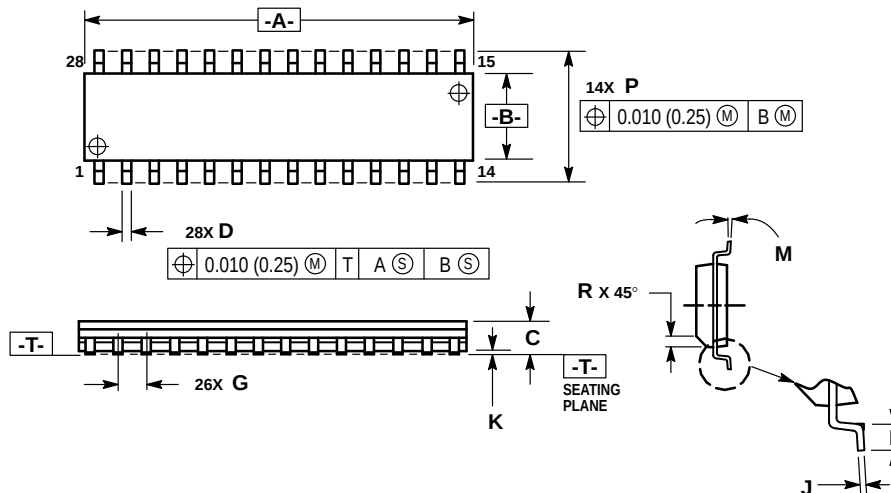


NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. DIMENSIONS A AND B DO NOT INCLUDE MOLD PROTRUSION.
4. MAXIMUM MOLD PROTRUSION 0.150 (0.006) PER SIDE.
5. DIMENSION D DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.13 (0.005) TOTAL IN EXCESS OF D DIMENSION AT MAXIMUM MATERIAL CONDITION.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	12.65	12.95	0.499	0.510
B	7.40	7.60	0.292	0.299
C	2.35	2.65	0.093	0.104
D	0.35	0.49	0.014	0.019
F	0.50	0.90	0.020	0.035
G	1.27 BSC	0.050 BSC		
J	0.25	0.32	0.010	0.012
K	0.10	0.25	0.004	0.009
M	0°	7°	0°	7°
P	10.05	10.55	0.395	0.415
R	0.25	0.75	0.010	0.029

DW SUFFIX
PLASTIC PACKAGE
CASE 751F-04
(SO-28L)
ISSUE E



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. DIMENSION A AND B DO NOT INCLUDE MOLD PROTRUSION.
4. MAXIMUM MOLD PROTRUSION 0.15 (0.006) PER SIDE.
5. DIMENSION D DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.13 (0.005) TOTAL IN EXCESS OF D DIMENSION AT MAXIMUM MATERIAL CONDITION.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	17.80	18.05	0.701	0.711
B	7.40	7.60	0.292	0.299
C	2.35	2.65	0.093	0.104
D	0.35	0.49	0.014	0.019
F	0.41	0.90	0.016	0.035
G	1.27 BSC	0.050 BSC		
J	0.23	0.32	0.009	0.013
K	0.13	0.29	0.005	0.011
M	0°	8°	0°	8°
P	10.05	10.55	0.395	0.415
R	0.25	0.75	0.010	0.029

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How to reach us:

USA / EUROPE: Motorola Literature Distribution;
P.O. Box 20912; Phoenix, Arizona 85036. 1-800-441-2447

JAPAN: Nippon Motorola Ltd.; Tatsumi-SPD-JLDC, Toshikatsu Otsuki,
6F Seibu-Butsuryu-Center, 3-14-2 Tatsumi Koto-Ku, Tokyo 135, Japan. 03-3521-8315

MFAX: RMFAX0@email.sps.mot.com – TOUCHTONE (602) 244-6609
INTERNET: <http://Design-NET.com>

HONG KONG: Motorola Semiconductors H.K. Ltd.; 8B Tai Ping Industrial Park,
51 Ting Kok Road, Tai Po, N.T., Hong Kong. 852-26629298


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MC13027/D

