SCOPE: 8TH-ORDER CONTINUOUS-TIME ACTIVE FILTERS

Device Type	Generic Number
01	MAX274AMYG/883B
02	MAX274BMYG/883B

Case Outline(s). The case outlines shall be designated in Mil-Std-1835 and as follows:

Outline Letter	Mil-Std-1835	Case Outline	Package Code
YB	CDIP2-T24	24 Lead Sidebraze	Y24

Absolute Maximum Ratings

V+ to V- ..... -0.3V, 12V
Input Voltage to GND (any input) ..... V^- -0.3V, V^+ +0.3V

Lead Temperature (soldering, 10 seconds) ..... +300°C
Storage Temperature ..... -65°C to +150°C

Continuous Power Dissipation ..... T_A=+70°C
24 pin Sidebraze(derate 14.29mW/°C above +70°C) 1143mW
Junction Temperature T_J ..... +150°C
Thermal Resistance, Junction to Case, ΘJC:
24 pin Sidebraze ..... 25°C/W
Thermal Resistance, Junction to Ambient, ΘJA:
24 pin Sidebraze ..... 70°C/W

Recommended Operating Conditions

Ambient Operating Range (T_A) ..... -55°C to +125°C

Stresses beyond those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

TABLE 1. ELECTRICAL TESTS:

TEST	Symbol	CONDITIONS -55 °C <=T_A<= +125°C V+=5V, V-=-5V Unless otherwise specified	Group A Subgroup	Device type	Limits Min	Limits Max	Units
FILTER CHARACTERISTICS							
Center-Frequency Accuracy	Fo		1,2,3	01 02	-1.0 -1.4	1.0 1.4	%
Q Accuracy-Unadjusted	Fo		1,2,3	01 02	-10 -15	10 15	%
DC CHARACTERISTICS							
DC Lowpass Gain Accuracy	H_{OLP}	Assume ideal resistors	1,2,3	01 02	-2.0 -3.0	2.0 3.0	%
Offset Voltage at Outputs	V_{OS}	LPO_	1,2,3	01 02	-200 -300	200 300	mV
		BPO_		01 02	-40 -80	40 80	
Leakage Current at FC Pin	I_{FC}		1,2,3	01,02	-10	10	µA
DYNAMIC FILTER CHARACTERISTICS							
Output Voltage Swing	V_{OUT}	LPO_, BPO_, R_{LOAD}=5kΩ	1,2,3	All	±3.25		V
POWER REQUIREMENTS							
Supply Voltage Range	V_{SUPP}		1,2,3	All	±2.37	±5.5	V
Supply Current	I_{CC}	For V+, V-	1,2,3	All		±30	mA

Package	ORDERING	INFORMATION:
24pin Sidebraze	01	MAX274AMYG/883B
24pin sidebraze	02	MAX274BMYG/883B

	24 pin Sidebraze		
1	LPOA	13	LPOC
2	INA	14	INC
3	BPIA	15	BPIC
4	BPOA	16	BPOC
5	V+	17	V-
6	LPIA	18	LPIC
7	LPIB	19	LPID
8	FC	20	GND
9	BPOB	21	BPOD
10	BPIP	22	BPID
11	INB	23	IND
12	LPOB	24	LPOD

QUALITY ASSURANCE

Sampling and inspection procedures shall be in accordance with MIL-Prf-38535, Appendix A as specified in Mil-Std-883.

Screening shall be in accordance with Method 5004 of Mil-Std-883. Burn-in test Method 1015:

1. Test Condition, A, B, C, or D.
2. TA = +125°C minimum.
3. Interim and final electrical test requirements shall be specified in Table 2.

Quality conformance inspection shall be in accordance with Method 5005 of Mil-Std-883, including Groups A, B, C, and D inspection.

Group A inspection:

1. Tests as specified in Table 2.
2. Selected subgroups in Table 1, Method 5005 of Mil-Std-883 shall be omitted.

Group C and D inspections:

a. End-point electrical parameters shall be specified in Table 1.
b. Steady-state life test, Method 1005 of Mil-Std-883:
   1. Test condition A, B, C, D.
   2. TA = +125°C, minimum.
   3. Test duration, 1000 hours, except as permitted by Method 1005 of Mil-Std-883.

TABLE 2. ELECTRICAL TEST REQUIREMENTS

Mil-Std-883 Test Requirements	Subgroups per Method 5005, Table 1
Interim Electric Parameters Method 5004	1
Final Electrical Parameters Method 5005	1*, 2, 3
Group A Test Requirements Method 5005	1, 2, 3
Group C and D End-Point Electrical Parameters Method 5005	1

* PDA applies to Subgroup 1 only.