SCOPE: PROGRAMMABLE VOLTAGE DETECTOR

Device Type	Generic Number	SMD Number
01	MAX8211(x)/883B	5962-9081101
02	MAX8212(x)/883B	5962-9081102

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
Maxim	SMD			
JA	P	GDIP1-T08 or CDIP2-T08	8 Lead CERDIP	J08
FB	X	CDFP3-F10	10 Pin Flatpack	F10
TV	G	MACY1-8X	8 Lead Can	G99

Absolute Maximum Ratings

Supply Voltage ..... -0.5 to +18V
Output Voltage ..... -0.5 to +18V
Hysteresis Voltage ..... +0.5V to -18V with respect to V^+ +0.5V
Threshold Input Voltage ..... -0.5V to (V^+ +0.5V)
Current Into Any Terminal ..... ±50mA

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

Continuous Power Dissipation ..... T_A=+70°C
8 lead CERDIP(derate 8.0mW/°C above +70°C) 640mW
10 lead Flatpack(derate 5.3mW/°C above +70°C) 421mW
8 lead Can(derate 6.67mW/°C above +70°C) 533mW
Junction Temperature T_J ..... +150°C
Thermal Resistance, Junction to Case, ΘJC:
Case Outline 8 lead CERDIP..... 55°C/W
Case Outline 10 lead Flatpack ..... 85°C/W
Case Outline 8 lead Can ..... 45°C/W
Thermal Resistance, Junction to Ambient, ΘJA:
Case Outline 8 lead CERDIP..... 125°C/W
Case Outline 10 lead Flatpack ..... 190°C/W
Case Outline 8 lead Can ..... 150°C/W

Recommended Operating Conditions

Ambient Operating Range (T_A) ..... -55°C to +125°C
Supply Voltage Range (V^+) ..... 2.0V to 16.5V

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^+=+5.0V Unless otherwise specified	Group A Subgroup	Device type	Limits Min	Limits Max	Units
Supply Current	I^+	V^+=2V, 5V, 16.5V, V_{TH}=GND, V^+	1	All		15	µA
		V^+=2.2V, 5V,16.5V, V_{TH}=GND, V^+	2,3			20	
Threshold Trip Voltage	V_{THP}	V^+=16.5V, I_{OUT}=4mA V^+=2.0V, I_{OUT}=500µA	1	All	1.11	1.19	V
		V^+=16.5V, I_{OUT}=3mA V^+=2.2V, I_{OUT}=500µA	2,3	All	1.05	1.25	
Threshold Input Current	I_{TH}	V_{TH}=GND, V^+	1 2,3	All		10 20	nA
Output Leakage Current	I_{OLK}	V_{OUT}=16.5V, V_{TH}=1.3V V_{OUT}=5V, V_{TH}=1.3V	1,2,3	01		30 10	µA
		V_{OUT}=16.5V, V_{TH}=0.9V V_{OUT}=5V, V_{TH}=0.9V	1,2,3	02		30 10	
Output Saturation Voltage	V_{SAT}	I_{OUT}=2mA, V_{TH}=1.0V	1	01		0.4	V
		I_{OUT}=2mA, V_{TH}=1.3V		02		0.4	
Maximum Available Output Current	I_{OH}	V_{TH}=1.0V	1,2,3	01	4.0		mA
		V_{TH}=1.3V		02	12		
Hysteresis Leakage Current	I_{HYS}	V^+=16.5V, V_{HYS}=GND, V_{TH}=0.9V	1,2,3	All		3	µA
Hysteresis Saturation Voltage	V_{HYS} (max)	I_{HYS}=0.5mA, V_{TH}=1.3V measured with respect to V^+	1	All		-0.2	V
Maximum Available Hysteresis Current	I_{HYS} (max)	V_{TH}=1.3V, V_{HYS}=0V	1	All	2		mA

NOTE 1: V_{TH}≤8Vfor normal operation, except under stress testing.

TERMINAL CONNECTIONS:

For both MAX8211 and MAX8212			
	J8	F10	TO99
1	NC	NC	THRESH
2	HYST	HYST	OUT
3	THRESH	THRESH	NC
4	OUT	OUT	GND
5	GND	GND	NC
6	NC	NC	NC
7	NC	NC	V+(case)
8	V+	V+	HYST
9		NC	
10		NC	

Device Type	Package	ORDERING INFORMATION:	SMD Number
01	8 pin CERDIP	MAX8211MJA/883B	5962-9081101MPA
01	10 lead Flatpack	MAX8211MFB/883B	5962-9081101MXC
01	8 pin Can	MAX8211MTV/883B	5962-9081101MGC
02	8 pin CERDIP	MAX8212MJA/883B	5962-9081202MPA
02	10 lead Flatpack	MAX8212MFB/883B	5962-9081202MXC
02	8 pin Can	MAX8212MTV/883B	5962-9081202MGC

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.