



Maxim > Products > [Supervisors, Voltage Monitors, Sequencers] [Military/Aerospace]

MAX705, MAX706, MAX707, MAX708, MAX813L

Low-Cost, μ P Supervisory Circuits

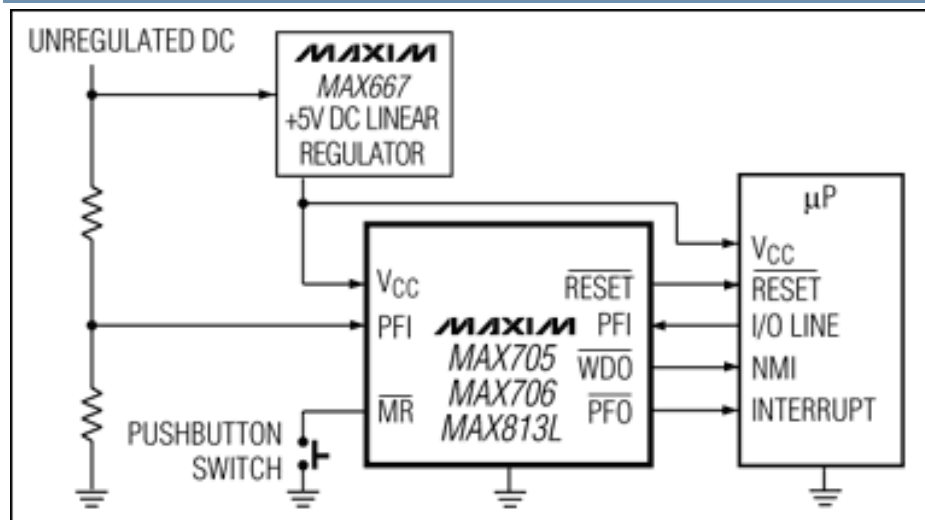
Low-Cost Reset + Watchdog ICs

Recommended Upgrades for New Designs		
Part Number	Replacement	Explanation
MAX813	MAX6317	SOT package, lower power, lower cost, 26 thresholds, 4 reset timeouts, 4 watchdog timeout options.
MAX813	MAX6706	SOT package, power-fail comparator monitors down to 0.62v, 95% lower power, lower cost.
MAX813	MAX6821	Lower voltage options for monitoring down to 1.8V supplies, SOT package, lower power
MAX813	MAX6822	
MAX813	MAX6823	
MAX813	MAX6824	
MAX813	MAX6825	

Key Specifications: Supervisors (1 Monitored Voltage)										
Part Number	Reset Threshold Range (V)	Active-Low Reset Output	Active-High Reset Output	Min. Reset Timeout Range	Watchdog Feature	Nom. Watchdog Timeout Range	Supervisor Features	Reset Thresh. Acc. (% @+25°C)	Max. I _{CC} (μ A)	
MAX705	3.3 to 5.5	Push-Pull	-	85ms to 300ms	Input (WDI) Input/Output (WDI/ WDO)	1s to 2s	Adjustable Reset Input Manual Reset Power Fail Comparator	2.5	350	
MAX706			-		Input (WDI) Input/Output (WDI/ WDO)	1s to 2s				
MAX707			Push-Pull		No Watchdog	-				
MAX708			Push-Pull		No Watchdog	-				

Notes:

**This pricing is BUDGETARY, for comparing similar parts. Prices are in U.S. dollars and subject to change. Quantity pricing may vary substantially and international prices may differ due to local duties, taxes, fees, and exchange rates. For volume-specific prices and delivery, please see the [price and availability page](#) or contact an authorized distributor.

Diagram

Typical Operating Circuit

Evaluation Kits

none

Design Guides

[Microprocessor Supervisory \(PDF\)](#)

[Low-Power Notebook ICs \(PDF\)](#)

[Wireless \(PDF\)](#)

Reliability Reports

Show FIT data for:

Reliability Report: [MAX705xxA.pdf](#) [MAX708xxA.pdf](#) [MAX813LxxA.pdf](#)

Request Reliability Report for:

Software / Models

none

Ordering Information

Notes:

1. Other options and links for purchasing parts are listed at:
2. [Didn't Find What You Need?](#) Ask our applications engineers. Expert assistance in finding parts, usually within one business day.
3. Part number suffixes: T or T&R = tape and reel; + = RoHS/lead-free; # = RoHS/lead-exempt. More: See [Full Data Sheet](#) or [Part Naming Conventions](#).
4. * Some packages have variations, listed on the drawing. "PkgCode/Variation" tells which variation the product uses. Note that "+", "#", "-" in the part number suffix describes RoHS status. Package drawings may show a different suffix character.

Filter:

Devices: 1-100 of 113

1 2 --->

MAX705	Free Sample	Buy	Package: TYPE PINS FOOTPRINT DRAWING CODE / VAR *	Temp	RoHS/Lead-Free? Materials Analysis
MAX705CUA-G05				0°C to +70°C	See data sheet
MAX705CSA-G05				0°C to +70°C	See data sheet
MAX705MJA/883B			Ceramic DIP;8 pin; Dwg: 21-0045 (PDF) Use pkgcode/variation: J8-2*	-55°C to +125°C	RoHS/Lead-Free: No Materials Analysis
MAX705MJA			Ceramic DIP;8 pin; Dwg: 21-0045 (PDF) Use pkgcode/variation: J8-2*	-55°C to +125°C	RoHS/Lead-Free: No Materials Analysis
MAX705C/D					See data sheet
MAX705CPA+			PDIP;8 pin; Dwg: 21-0043 (PDF) Use pkgcode/variation: P8+1*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis

MAX705CPA			PDIP;8 pin; Dwg: 21-0043 (PDF) Use pkgcode/variation: P8-1*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX705EPA			PDIP;8 pin; Dwg: 21-0043 (PDF) Use pkgcode/variation: P8-1*	-40°C to +85°C	RoHS/Lead-Free: No Materials Analysis
MAX705EPA+			PDIP;8 pin; Dwg: 21-0043 (PDF) Use pkgcode/variation: P8+1*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX705CSA-TG05			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8-2*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX705CSA-G077			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8-2*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX705CSA-TG077			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8-2*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX705CSA-T			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8-2*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX705CSA			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8-2*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX705CSA+			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8+2*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX705CSA+T			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8+2*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX705ESA+T			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8+2*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX705ESA+			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8+2*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX705ESA-T			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8-2*	-40°C to +85°C	RoHS/Lead-Free: No Materials Analysis
MAX705ESA			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8-2*	-40°C to +85°C	RoHS/Lead-Free: No Materials Analysis

MAX705CUA+T				0°C to +70°C	See data sheet
MAX705CUA+			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8+1*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX705CUA-TG05			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8-1*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX705CUA-T			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8-1*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX705CUA			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8-1*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX705EUA+T			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8+1*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX705EUA+			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8+1*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX705EUA-T			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8-1*	-40°C to +85°C	RoHS/Lead-Free: No Materials Analysis
MAX705EUA			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8-1*	-40°C to +85°C	RoHS/Lead-Free: No Materials Analysis
MAX706	Free Sample	Buy	Package: TYPE PINS FOOTPRINT DRAWING CODE/VAR *	Temp	RoHS/Lead-Free? Materials Analysis
MAX706MJA/883B			Ceramic DIP;8 pin; Dwg: 21-0045 (PDF) Use pkgcode/variation: J8-2*	-55°C to +125°C	RoHS/Lead-Free: No Materials Analysis
MAX706MJA			Ceramic DIP;8 pin; Dwg: 21-0045 (PDF) Use pkgcode/variation: J8-2*	-55°C to +125°C	RoHS/Lead-Free: No Materials Analysis
MAX706C/D					See data sheet
MAX706CPA			PDIP;8 pin; Dwg: 21-0043 (PDF) Use pkgcode/variation: P8-1*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis

MAX706CPA+			PDIP;8 pin; Dwg: 21-0043 (PDF) Use pkgcode/variation: P8+1*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX706EPA+			PDIP;8 pin; Dwg: 21-0043 (PDF) Use pkgcode/variation: P8+1*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX706EPA			PDIP;8 pin; Dwg: 21-0043 (PDF) Use pkgcode/variation: P8-1*	-40°C to +85°C	RoHS/Lead-Free: No Materials Analysis
MAX706CSA-T			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8-2*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX706CSA+T			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8+2*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX706CSA			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8-2*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX706CSA+			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8+2*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX706ESA			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8-2*	-40°C to +85°C	RoHS/Lead-Free: No Materials Analysis
MAX706ESA+			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8+2*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX706ESA-T			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8-2*	-40°C to +85°C	RoHS/Lead-Free: No Materials Analysis
MAX706ESA+T			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8+2*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX706CUA			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8-1*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX706CUA+			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8+1*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX706CUA-T			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8-1*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis

MAX706CUA+T			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8+1*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX706EUA			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8-1*	-40°C to +85°C	RoHS/Lead-Free: No Materials Analysis
MAX706EUA-T				-40°C to +85°C	See data sheet
MAX706EUA+T				-40°C to +85°C	See data sheet
MAX706EUA+			uMAX;8 pin; Dwg: 21-0036 (PDF) Use pkgcode/variation: U8+1*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX707	Free Sample	Buy	Package: TYPE PINS FOOTPRINT DRAWING CODE / VAR *	Temp	RoHS/Lead-Free? Materials Analysis
MAX707MJA			Ceramic DIP;8 pin; Dwg: 21-0045 (PDF) Use pkgcode/variation: J8-2*	-55°C to +125°C	RoHS/Lead-Free: No Materials Analysis
MAX707MJA/883B			Ceramic DIP;8 pin; Dwg: 21-0045 (PDF) Use pkgcode/variation: J8-2*	-55°C to +125°C	RoHS/Lead-Free: No Materials Analysis
MAX707C/D					See data sheet
MAX707EPA+			PDIP;8 pin; Dwg: 21-0043 (PDF) Use pkgcode/variation: P8+1*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX707CPA+			PDIP;8 pin; Dwg: 21-0043 (PDF) Use pkgcode/variation: P8+1*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX707CPA			PDIP;8 pin; Dwg: 21-0043 (PDF) Use pkgcode/variation: P8-1*	0°C to +70°C	RoHS/Lead-Free: No Materials Analysis
MAX707EPA			PDIP;8 pin; Dwg: 21-0043 (PDF) Use pkgcode/variation: P8-1*	-40°C to +85°C	RoHS/Lead-Free: No Materials Analysis
MAX707CSA+T			SOIC;8 pin; Dwg: 21-0041 (PDF) Use pkgcode/variation: S8+2*	0°C to +70°C	RoHS/Lead-Free: Lead Free Materials Analysis



Low-Cost, μ P Supervisory Circuits

MAX705-MAX708/MAX813L

General Description

The MAX705-MAX708/MAX813L microprocessor (μ P) supervisory circuits reduce the complexity and number of components required to monitor power-supply and battery functions in μ P systems. These devices significantly improve system reliability and accuracy compared to separate ICs or discrete components.

The MAX705/MAX706/MAX813L provide four functions:

- 1) A reset output during power-up, power-down, and brownout conditions.
- 2) An independent watchdog output that goes low if the watchdog input has not been toggled within 1.6 seconds.
- 3) A 1.25V threshold detector for power-fail warning, low-battery detection, or for monitoring a power supply other than +5V.
- 4) An active-low manual-reset input.

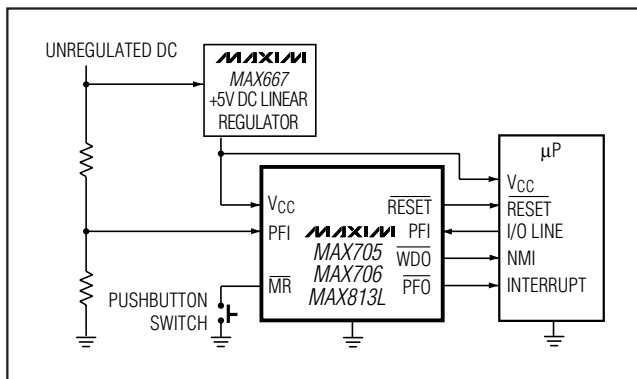
The MAX707/MAX708 are the same as the MAX705/MAX706, except an active-high reset is substituted for the watchdog timer. The MAX813L is the same as the MAX705, except RESET is provided instead of $\overline{\text{RESET}}$.

Two supply-voltage monitor levels are available: The MAX705/MAX707/MAX813L generate a reset pulse when the supply voltage drops below 4.65V, while the MAX706/MAX708 generate a reset pulse below 4.40V. All four parts are available in 8-pin DIP, SO and μ MAX packages.

Applications

Computers
 Controllers
 Intelligent Instruments
 Automotive Systems
 Critical μ P Power Monitoring

Typical Operating Circuit



Features

- ♦ μ MAX Package: Smallest 8-Pin SO
- ♦ Guaranteed $\overline{\text{RESET}}$ Valid at $V_{CC} = 1V$
- ♦ Precision Supply-Voltage Monitor
 4.65V in MAX705/MAX707/MAX813L
 4.40V in MAX706/MAX708
- ♦ 200ms Reset Pulse Width
- ♦ Debounced TTL/CMOS-Compatible Manual-Reset Input
- ♦ Independent Watchdog Timer—1.6sec Timeout (MAX705/MAX706)
- ♦ Active-High Reset Output (MAX707/MAX708/MAX813L)
- ♦ Voltage Monitor for Power-Fail or Low-Battery Warning

Ordering Information

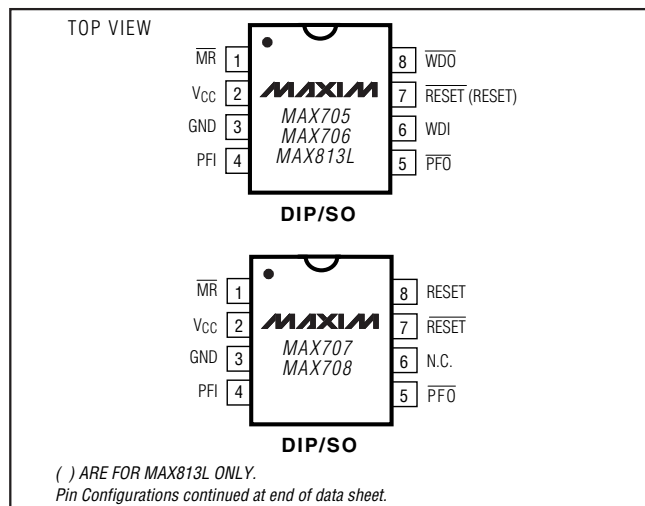
PART	TEMP RANGE	PIN-PACKAGE
MAX705CPA	0°C to +70°C	8 Plastic DIP
MAX705CSA	0°C to +70°C	8 SO
MAX705CUA	0°C to +70°C	8 μ MAX
MAX705C/D	0°C to +70°C	Dice*

Ordering Information continued at end of data sheet.

* Dice are specified at $T_A = +25^\circ\text{C}$.

** Contact factory for availability and processing to MIL-STD-883. Devices in PDIP, SO and μ MAX packages are available in both leaded and lead-free packaging. Specify lead free by adding the + symbol at the end of the part number when ordering. Lead free not available for Cerdip package.

Pin Configurations



Low-Cost, μ P Supervisory Circuits

ABSOLUTE MAXIMUM RATINGS

Terminal Voltage (with respect to GND)		SO (derate 5.88mW/°C above +70°C)	471mW
V _{CC}	-0.3V to 6.0V	μ MAX (derate 4.10mW/°C above +70°C)	330mW
All Other Inputs (Note 1)	-0.3V to (V _{CC} + 0.3V)	CERDIP (derate 8.00mW/°C above +70°C)	640mW
Input Current		Operating Temperature Ranges	
V _{CC}	20mA	MAX70_C__, MAX813LC__	0°C to +70°C
GND	20mA	MAX70_E__, MAX813LE__	-40°C to +85°C
Output Current (all outputs)	20mA	MAX70_MJA	-55°C to +125°C
Continuous Power Dissipation		Storage Temperature Range	-65°C to +160°C
Plastic DIP (derate 9.09mW/°C above +70°C)	727mW	Lead Temperature (soldering, 10sec)	+300°C

Note 1: The input voltage limits on PFI and $\overline{MR}$ can be exceeded if the input current is less than 10mA.

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.

ELECTRICAL CHARACTERISTICS

(V_{CC} = 4.75V to 5.5V for MAX705/MAX707/MAX813L, V_{CC} = 4.5V to 5.5V for MAX706/MAX708, T_A = T_{MIN} to T_{MAX}, unless otherwise noted.)

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Operating Voltage Range	V _{CC}	MAX70_C	1.0		5.5	V
		MAX813LC	1.1		5.5	
		MAX70_E/M, MAX813LE/M	1.2		5.5	
Supply Current	I _{SUPPLY}	MAX705C, MAX706C, MAX813LC		150	350	μ A
		MAX705E/M, MAX706E/M, MAX813LE/M		150	500	
		MAX707C, MAX708C		50	350	
		MAX707E/M, MAX708E/M		50	500	
Reset Threshold (Note 2)	V _{RT}	MAX705, MAX707, MAX813L	4.50	4.65	4.75	V
		MAX706, MAX708	4.25	4.40	4.50	
Reset Threshold Hysteresis (Note 2)				40		mV
Reset Pulse Width (Note 2)	t _{RS}		140	200	280	ms
$\overline{RESET}$ Output Voltage		I _{SOURCE} = 800 μ A	V _{CC} - 1.5			V
		I _{SINK} = 3.2mA			0.4	
		MAX70_C, V _{CC} = 1V, I _{SINK} = 50 μ A			0.3	
		MAX70_E/M, V _{CC} = 1.2V, I _{SINK} = 100 μ A			0.3	
RESET Output Voltage		MAX707, MAX708, I _{SOURCE} = 800 μ A	V _{CC} - 1.5			V
		MAX707, MAX708, I _{SINK} = 1.2mA			0.4	
		MAX813LC, I _{SOURCE} = 4 μ A, V _{CC} = 1.1V	0.8			
		MAX813LE/M, I _{SOURCE} = 4 μ A, V _{CC} = 1.2V	0.9			
		MAX813L	I _{SOURCE} = 800 μ A		V _{CC} - 1.5	
			I _{SINK} = 3.2mA		0.4	
Watchdog Timeout Period	t _{WD}	MAX705, MAX706, MAX813L	1.00	1.60	2.25	sec
WDI Pulse Width	t _{WP}	V _{IL} = 0.4V, V _{IH} = (V _{CC}) (0.8)	50			ns
WDI Input Threshold	Low	MAX705, MAX706, MAX813L, V _{CC} = 5V			0.8	V
	High		3.5			
WDI Input Current		MAX705, MAX706, MAX813L, WDI = V _{CC}		50	150	μ A
		MAX705, MAX706, MAX813L, WDI = 0V	-150	-50		
$\overline{WDO}$ Output Voltage		MAX705, MAX706, MAX813L, I _{SOURCE} = 800 μ A	V _{CC} - 1.5			V
		MAX705, MAX706, MAX813L, I _{SINK} = 1.2mA			0.4	

Low-Cost, μ P Supervisory Circuits

ELECTRICAL CHARACTERISTICS (continued)

(V_{CC} = 4.75V to 5.5V for MAX705/MAX707/MAX813L, V_{CC} = 4.5V to 5.5V for MAX706/MAX708, T_A = T_{MIN} to T_{MAX} , unless otherwise noted.)

PARAMETER		SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
MR Pull-Up Current			MR = 0V	100	250	600	μA
MR Pulse Width		tMR		150			ns
MR Input Threshold	Low			0.8			V
	High			2.0			
MR to Reset Out Delay (Note 2)		tMD		250			ns
PFI Input Threshold			VCC = 5V	1.20	1.25	1.30	V
PFI Input Current				-25.00	0.01	25.00	nA
PFO Output Voltage			ISOURCE = 800μA	VCC - 1.5			V
			ISINK = 3.2mA	0.4			

Note 2: Applies to both $\overline{RESET}$ in the MAX705-MAX708 and $\overline{RESET}$ in the MAX707/MAX708/MAX813L.

MAX705-MAX708/MAX813L

Low-Cost, μP Supervisory Circuits

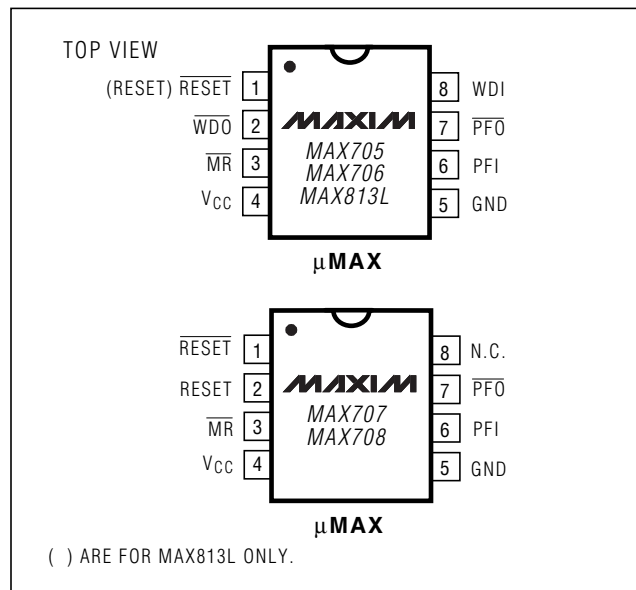
Ordering Information (continued)

PART	TEMP. RANGE	PIN-PACKAGE
MAX705EPA	-40°C to +85°C	8 Plastic DIP
MAX705ESA	-40°C to +85°C	8 SO
MAX705EUA	-40°C to +85°C	8 μ MAX
MAX705MJA	-55°C to +125°C	8 CERDIP**
MAX706CPA	0°C to +70°C	8 Plastic DIP
MAX706CSA	0°C to +70°C	8 SO
MAX706CUA	0°C to +70°C	8 μ MAX
MAX706C/D	0°C to +70°C	Dice*
MAX706EPA	-40°C to +85°C	8 Plastic DIP
MAX706ESA	-40°C to +85°C	8 SO
MAX706EUA	-40°C to +85°C	8 μ MAX
MAX706MJA	-55°C to +125°C	8 CERDIP**
MAX707CPA	0°C to +70°C	8 Plastic DIP
MAX707CSA	0°C to +70°C	8 SO
MAX707CUA	0°C to +70°C	8 μ MAX
MAX707C/D	0°C to +70°C	Dice*
MAX707EPA	-40°C to +85°C	8 Plastic DIP
MAX707ESA	-40°C to +85°C	8 SO
MAX707EUA	-40°C to +85°C	8 μ MAX
MAX707MJA	-55°C to +125°C	8 CERDIP**
MAX708CPA	0°C to +70°C	8 Plastic DIP
MAX708CSA	0°C to +70°C	8 SO
MAX708CUA	0°C to +70°C	8 μ MAX
MAX708C/D	0°C to +70°C	Dice*
MAX708EPA	-40°C to +85°C	8 Plastic DIP
MAX708ESA	-40°C to +85°C	8 SO
MAX708EUA	-40°C to +85°C	8 μ MAX
MAX708MJA	-55°C to +125°C	8 CERDIP**
MAX813LCPA	0°C to +70°C	8 Plastic DIP
MAX813LCSA	0°C to +70°C	8 SO
MAX813LCUA	0°C to +70°C	8 μ MAX
MAX813LC/D	0°C to +70°C	Dice*
MAX813LEPA	-40°C to +85°C	8 Plastic DIP
MAX813LESA	-40°C to +85°C	8 SO
MAX813LEUA	-40°C to +85°C	8 μ MAX
MAX813LMJA	-55°C to +125°C	8 CERDIP**

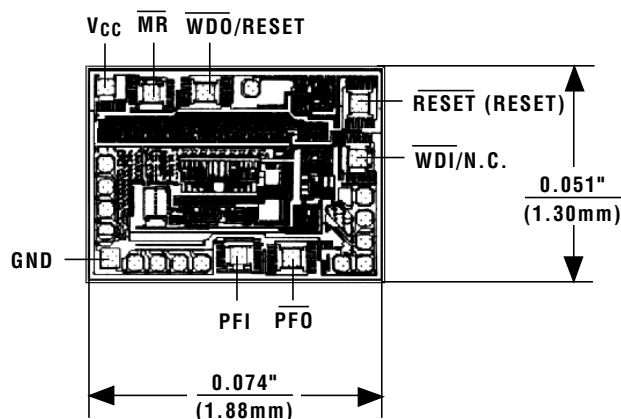
* Dice are specified at $T_A = +25^\circ\text{C}$.

** Contact factory for availability and processing to MIL-STD-883. Devices in PDIP, SO and μ MAX packages are available in both leaded and lead-free packaging. Specify lead free by adding the + symbol at the end of the part number when ordering. Lead free not available for CERDIP package.

Pin Configuration (continued)



Chip Topography



() ARE FOR MAX813L ONLY.

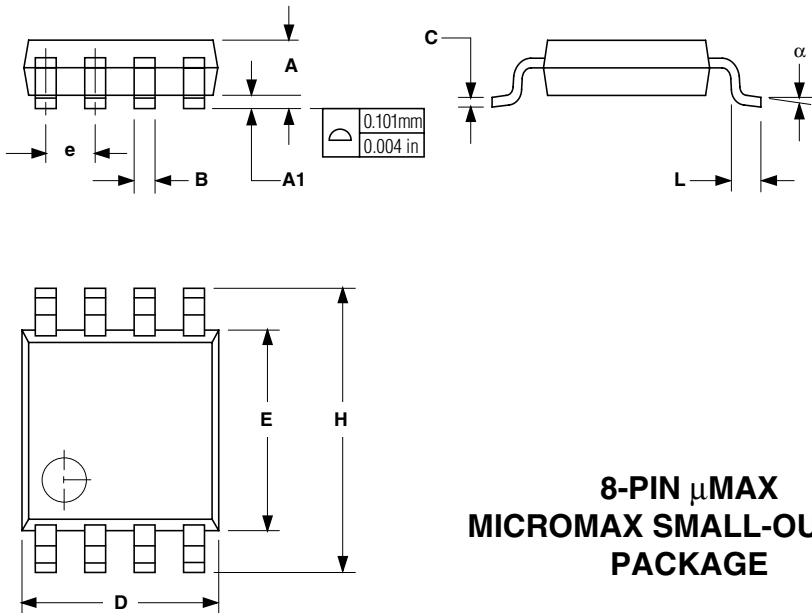
TRANSISTOR COUNT: 572

SUBSTRATE MUST BE LEFT UNCONNECTED.

Low-Cost, μP Supervisory Circuits

Package Information

(The package drawing(s) in this data sheet may not reflect the most current specifications. For the latest package outline information,



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.036	0.044	0.91	1.11
A1	0.004	0.008	0.10	0.20
B	0.010	0.014	0.25	0.36
C	0.005	0.007	0.13	0.18
D	0.116	0.120	2.95	3.05
E	0.116	0.120	2.95	3.05
e	0.0256		0.65	
H	0.188	0.198	4.78	5.03
L	0.016	0.026	0.41	0.66
α	0°	6°	0°	6°

21-0036D

8-PIN μ MAX
MICROMAX SMALL-OUTLINE
PACKAGE