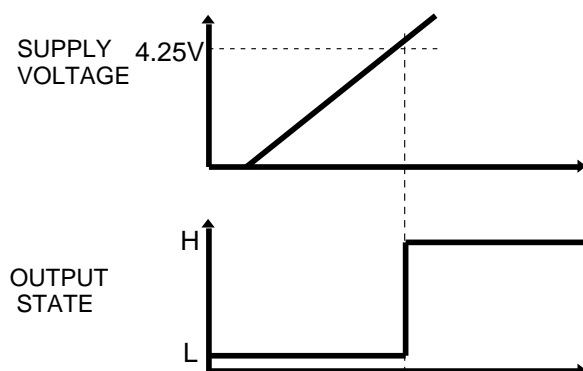


M51943AGP

VOLTAGE DETECTING, SYSTEM RESETTING IC SERIES

FUNCTION DIAGRAM



ABSOLUTE MAXIMUM RATINGS (Ta=25°C Unless otherwise noted)

Symbol	Parameter	Test condition		Ratings	Unit
I _{CC}	Supply Voltage			18	V
I _{sink}	Output Sink Current			6	mA
V _o	Output Voltage	Output with constant current load		V _{CC}	V
P _d	Power Dissipation	5pin SOP(SOT-25)		200	mW
K _θ	Thermal Derating	T _a 25°C	5pin SOP	2	mW/°C
T _{opr}	Operating Temperature			-30 to +85	°C
T _{stg}	Storage Temperature			-40 to +125	°C

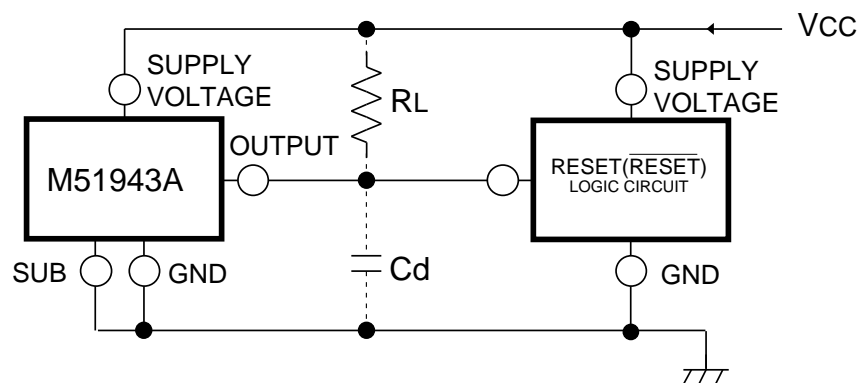
ELECTRICAL CHARACTERISTICS (Ta=25°C, Unless otherwise noted)

Symbol	Parameter	Test condition	Limits			Unit
			MIN	TYP	MAX	
V _s	Detecting Voltage		4.05	4.25	4.45	V
V _S	Hysteresis Voltage		30	50	80	mV
V _s / T	Detecting Voltage Temperature Coefficient		—	0.01	—	%/°C
I _{CC}	Circuit Current	V _{CC} =5V	—	370	560	μA
V _{sat}	Output Saturation Voltage	V _{CC} =4V, I _{sink} =4mA	—	0.2	0.4	V
V _{OPL}	Threshold Operating Voltage	Minimum supply voltage for IC operation	—	0.67	0.8	V
		RL=2.2k, V _{sat} 0.4V RL=100k, V _{sat} 0.4V	—	0.55	0.7	
I _{OC}	Output Load Current	V _{CC} =5V, V _O =1/2V _{CC}	-40	-25	-17	μA
V _{OH}	Output High Voltage		V _{CC} -0.2	V _{CC} -0.06	—	V
t _{PHL}	Propagation Delay Time	Response time when V _{CC} changes H to L	—	6	—	μs
t _{PLH}		Response time when V _{CC} changes L to H	—	3	—	

M51943AGP

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Example of application circuit Reset Circuit of M51943AGP



Note 1.

This IC can be used whether a pull-up resistor is included in the logic circuit or not.

Note 2.

The logic circuit preferably should not have a pull-down resistor, but if one is present, add load resistor RL to overcome the pull-down resistor.

⚠ Mitsubishi Electric Corporation puts the maximum effort into making semiconductor products better and more reliable, but there is always the possibility that trouble may occur with them. Trouble with semiconductors may lead to personal injury, fire or property damage. Remember to give due consideration to safety when making your circuit design, in order to prevent fires from spreading, redundancy, malfunction or other mishap.