

# AN8359M

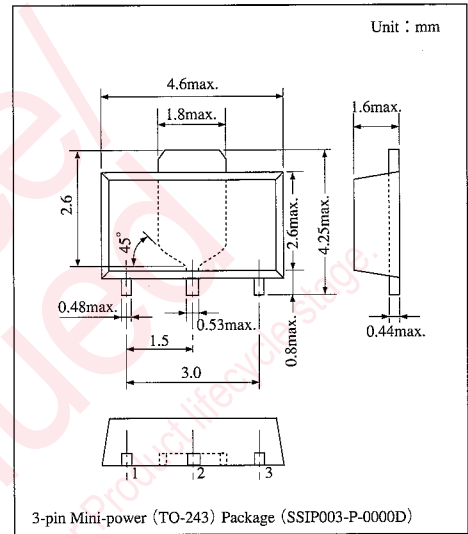
## Battery Constant Current Charging IC

### Overview

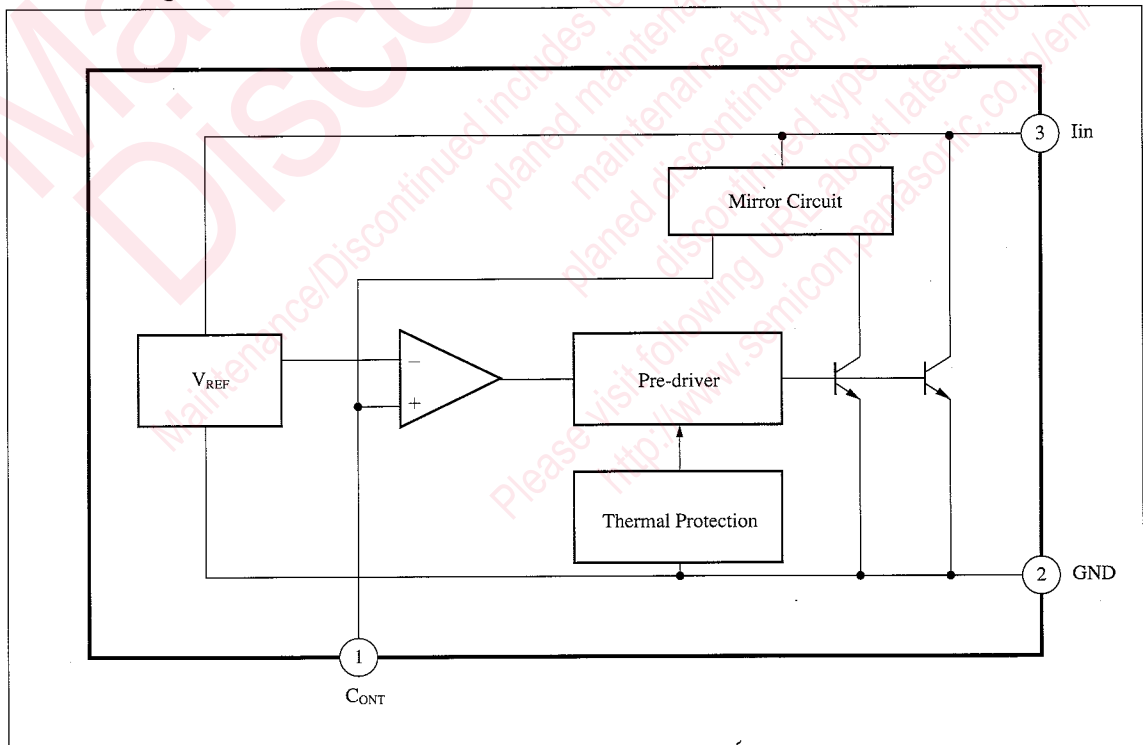
The AN8359M is an IC for constant current charging control of suction type for Ni-cd battery of cordless telephones and portable equipments.

### Features

- Constant current value is able to be defined by setting external resistance
- Thermal protective circuit built-in
- Mini-power package for surface mounting



### Block Diagram



### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Rating	Unit
Input voltage	$V_I$	18	V
Output current	$I_O$	600	mA
Power dissipation <sup>Note 1)</sup>	$P_D$	1000	mW
Operating ambient temperature	$T_{opr}$	-25 to +75	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

Note) Copper foil of 1 cm<sup>2</sup> or more for surface mounting on glass epoxy (20 × 20 × 1.7 mm)

### Recommended Operating Range ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Range
Operating supply voltage	$V_{CC}$	1.3V to 12V

### Electrical Characteristics ( $T_a = 25 \pm 2\text{ }^\circ\text{C}$ )

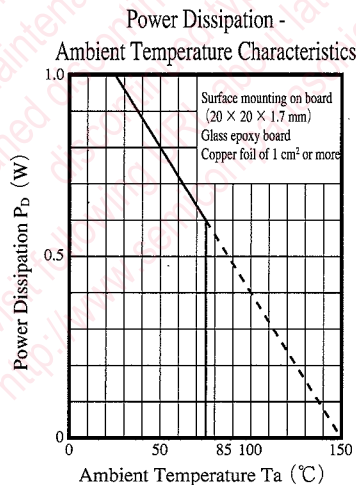
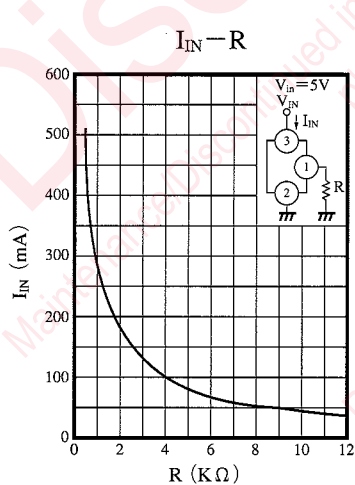
Parameter	Symbol	Condition	min	typ	max	Unit
Input current 1	$I_{IN1}$	$V_{IN} = 1.3\text{V}, R_L = 9.1\text{K}$	40	50	60	mA
Input current fluctuation with voltage 1	$\Delta I_{IN1}$ (LINE)	$V_{IN} = 1.3\text{ to }12\text{V}, R_L = 9.1\text{K}$	—	—	5	mA
Input current 2	$I_{IN2}$	$V_{IN} = 1.3\text{V}, R_L = 1.6\text{K}$	170	200	230	mA
Input current fluctuation with voltage 2	$\Delta I_{IN2}$ (LINE)	$V_{IN} = 1.3\text{ to }5\text{V}, R_L = 1.5\text{K}$	—	—	20	mA
Overheat protective operation temperature <sup>Note 2)</sup>	$T_{j(TH)}$		—	150	—	$^\circ\text{C}$
Maximum input current <sup>Note 2)</sup>	$I_{IN(max)}$	$V_{IN} = 2\text{V}, R_L = 0.5\text{k}\Omega$	—	500	—	mA

Note 1) The measurement time is 10 ms or less.

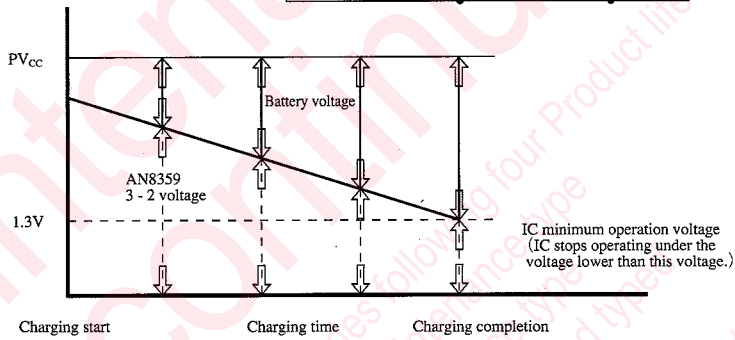
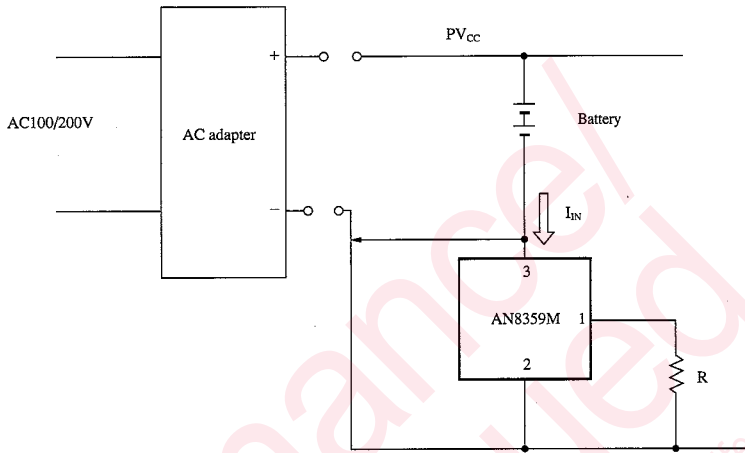
Note 2) These are design reference values, not guaranteed ones.

Voltage  
Regu-  
lators

### Characteristics Curve



■ Operation Characteristics



Using thermistor for \*R can give the current value the temperature characteristics.

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