

## **GS-R218**

# 27W SWITCHING REGULATOR FOR AUTOMOTIVE APPLICATION

| Туре    | V <sub>i</sub> | Vo   | lo    |
|---------|----------------|------|-------|
| GS-R218 | 10,5 to 16,0 V | 18 V | 1,5 A |

### **DESCRIPTION**

The GS-R218 is a switching voltage regulator that can deliver an output current of 1,5 A at 18 V when supplied by a car battery.

The regulator uses a cigar lighter case with a coiled cord and it is protected against overloads and short circuits at the output (latching overload protection: to restart the regulator after the intervention of the overload protection, the input voltage must be switched OFF and ON again).

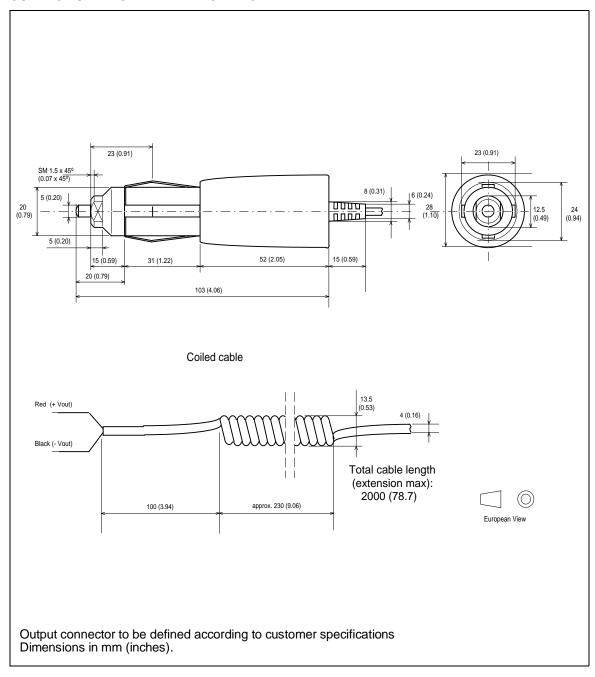


### **ELECTRICAL CHARACTERISTICS** (T<sub>amb</sub> = 25°C unless otherwise specified)

| Symbol | Parameter                              | Test Conditions   | Min  | Тур | Max  | Unit |
|--------|--|---|------|-----|------|------|
| Vi     | Input Voltage                          | $V_0 = 18 \text{ V}$ $I_0 = 0 \text{ to } 1.5 \text{ A}$                | 10.5 |     | 16   | V    |
| liq    | Input Quiescent<br>Current             | V <sub>i</sub> = 13 V I <sub>O</sub> = 0 A                              |      | 17  |      | mA   |
| Vo     | Output Voltage                         | $V_i = 10.5 \text{ to } 16 \text{ V } I_0 = 0 \text{ to } 1.5 \text{A}$ | 16.6 | 18  | 18.7 | V    |
| lo     | Output Current                         | Vi = 10.5 to 16V  | 0.0  |     | 1.5  | Α    |
| lol    | Output Overload<br>Current             | Vi = 10.5 to 16 V   | 1.6  |     |      | А    |
| Vor    | Output Ripple Voltage                  | Vi = 13 V I <sub>O</sub> = 1.5A   |      | 200 |      | mVpp |
| η      | Efficiency                             | Vi = 13 V I <sub>0</sub> = 1.5A   |      | 90  |      | %    |
| fs     | Switching Frequency                    |   |      | 300 |      | kHz  |
| Top    | Operating Ambient<br>Temperature Range |   | - 20 |     | +60  | °C   |
| Tstg   | Storage Temperature<br>Range           |   | - 20 |     | +85  | °C   |

June 1994 1/3

#### **CONNECTION DIAGRAM AND MECHANICAL DATA**



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