

File E211395
Project 02SC08196

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REPORT

ON

COMPONENT - PROTECTORS, LOW VOLTAGE SOLID-STATE OVERCURRENT

Maxim Integrated Products
Sunnyvale, California

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DESCRIPTION

PRODUCT COVERED:

Component - Protectors, low voltage solid-state overcurrent, Model MAX 1922 and MAX1930, which may be followed by a combination of symbols, letters and/or numbers.


GENERAL:

These devices are power distribution switches which limit the output current to a safe level when the output lead exceeds the current-limit threshold or a short is present. These devices are intended to be used on the secondary side of an isolating transformer or battery (maximum power levels of 250 VA) to provide a means of supplementary protection.

ELECTRICAL RATINGS:

Model No.	Input Voltage Range, V dc	Operational Current Rating, A	Overcurrent Protection Current Rating, A
MAX1922	2.7-5.5	1.4	2.1
MAX1930	2.7-5.5	1.5	2.3

MARKING:

The Recognized Company, trade name, or trademark, catalog number, and Recognized Component Mark  on the smallest package or reel.

Electrical ratings, including voltage range, maximum continuous current, protective current and operating temperatures shall be provided on the manufacturer's device specific datasheet. The datasheet may be web-based provided it is publicly accessible on the internet.

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE'S USE):

Use - For use only in products where the acceptability of the combination has been determined by Underwriters Laboratories Inc.

Conditions Of Acceptability -

- 1) These devices are integrated circuits and electrical spacings within the device are not specified.
- 2) These devices are entirely electronic in nature and have no means for manual operation or reset.
- 3) The terminals of these devices are for factory wiring only (8 or pin connector intended to be mounted on printed wiring board).

- 4) These devices have been investigated as electronic overcurrent protective devices in accordance with the requirements contained in UL 2367, the Standard for Solid State Overcurrent Protectors. As a result, use is permitted only on the load-side of an isolating transformer, power supply or battery with maximum levels limited as follows:

Output Voltage (V_{oc})		Output Current (I_{sc})	VA
V_{ac}	V_{dc}	A	(VxA)
≤ 20	≤ 20	$\leq 1000 / V_{oc}$	≤ 250
$20 < V_{oc} \leq 30$	$20 < V_{oc} \leq 30$	$\leq 1000 / V_{oc}$	≤ 250
-	$30 < V_{oc} \leq 60$	$\leq 1000 / V_{oc}$	≤ 250

Use on secondary supply circuits with a higher power capability requires additional evaluation for reliability, such as are contained in the Standard for Safety-Related Controls Employing Solid-State Controls, UL 991.

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- *5) These devices are intended to operate within the manufacturer's specified ratings and the criteria contained **UL 2367**. These devices limit currents to values less than the overcurrent protection rating of 5 amperes.
- 6) These devices have only been evaluated for supplementary overcurrent protection of secondary circuits supplied by the load side of a transformer or battery, and have not been evaluated for branch-circuit protection.
- 7) These devices have been subjected to environmental conditionings with respect to the following conditions (per Supplement SD of the Standard for Telephone Equipment, UL 1459):
- Shipping and Storage #
 - Thermal Cycling
 - Endurance
 - Abnormal
 - # Temperature Range: -30 to +70°C
- 8) These devices have not been subjected Tests for Telecom applications and their suitability for connection to telecommunication networks with outside plant connections should be determined in the end-use.
- 9) These devices were evaluated with respect to continuous current operation at the following current levels:
- | <u>Model No.</u> | <u>Continuous Current Rating, A</u> |
|------------------|-------------------------------------|
| MAX1922 | 1.4 |
| MAX1930 | 1.5 |
- 10) Suitable Capacitance shall be determined in preventing undervoltage conditions.