

EIA-364-70D

EIA STANDARD

TP-70D

**Temperature Rise Versus
Current Test Procedure for
Electrical Connectors
and Sockets**

EIA-364-70D

(Revision of EIA-364-70C)

May 2021



Electronic Components Industry Association

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This standard is based upon the major technical content of International Electrotechnical Commission standard 60512-5-1, Current-carrying Capacity Tests, 2002-02; and 60512-5-2, Current-carrying Capacity Tests, 2002-02. It conforms in all essential respects with this IEC standard.

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(From Standards Proposal No. 5460, formulated under the cognizance of the CE-2.0 Committee on EIA National Connector and Socket Standards.)

Published by

©Electronic Components Industry Association 2021
EIA Standards & Technology Department
13873 Park Center Road, Suite 315
Herndon, VA 20171

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TEST PROCEDURE No. 70D

TEMPERATURE RISE VERSUS CURRENT TEST PROCEDURE
FOR
ELECTRICAL CONNECTORS AND SOCKETS

(From EIA Standards Proposal No. 5460, formulated under the cognizance of the EIA CE-2.0 Committee on National Connector and Socket Standards, and previously published in EIA-364-70C.)

1 Introduction**1.1 Scope**

This procedure establishes the test procedures for determining temperature rise versus current for connectors and sockets with conductor sizes equal to or less than 0000 AWG or equivalent.

1.2 Test methods**1.2.1 Method 1, specified current**

The object of this test is to determine the temperature rise of connectors/sockets carrying a specified current; see 4.2.

1.2.2 Method 2, temperature rise versus current curve

The object of this test is to establish a characteristic temperature rise versus current curve for the connector or socket: see 4.3. This curve may subsequently be used to create a derating curve as appropriate for the stated maximum operating temperature of the connector or socket.

1.2.3 Method 3, specified temperature rise

The object of this test is to determine the current level, that will not exceed a specified temperature rise; see 4.4.

2 Test resources**2.1 Equipment****2.1.1 Regulated power supply**

Capable of regulating current within 1% of the desired value.

2.1.2 Ammeter, shunt or ohmmeter

Capable of determining the current within 1% of the desired value.