The Engineering Society For Advancing Mobility Land Sea Air and Space®
SAE INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

SURFACE VEHICLE RECOMMENDED PRACTICE

SAE J258

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CIRCUIT BREAKER—INTERNAL MOUNTED—AUTOMATIC RESET

Foreword—This Document has not changed other than to put it into the new SAE Technical Standards Board Format.

1. Scope

2. References

2.1 Applicable Publication—The following publication forms a part of the specification to the extent specified herein. Unless otherwise indicated the lastest revision of SAE publications shall apply.

2.1.1 SAE PUBLICATION—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J553—Circuit Breakers

3. Definitions

3.1 Internally Mounted Circuit Breaker—A circuit breaker mounted within an automotive switch or other automotive device for protection against overload of the wiring. In a given application, this same circuit breaker may be designed to protect against overload of the electrically operable devices.

4. Test Procedure

4.1 The circuits containing the internally mounted circuit breakers shall have 3 ft leads connected to their terminals. The wire, size, and mating terminals specified must be the same as the intended application or, if there are a variety of applications, then the minimum wire size with which the circuit breaker will meet the requirements of this recommended practice.

4.2 The *circuits* containing the internally mounted circuit breakers shall be allowed a 0.20 V drop at rated current, when tested individually, in addition to the voltage drop allowed in the switch or other device specification.

5. Requirements—In a switch or other device with multiple circuit breakers, the following requirements are for testing each circuit breaker individually, with the design load applied to the other circuit breakers:

5.1 Continuously carry 100% of its rated current (as specified by the manufacturer for 1 h at 24 ± 1.6 C (75 ± 3 F).

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5.2 After a 1 h soak at 51.6 ± 1.6 C (125 ± 3 F) and no load, the circuit breaker shall carry 80% of its rated current for 1 h at that temperature.

5.3 Effective current value shall not exceed 140% of its rated current when tested according to procedure as outlined in SAE J553 for Type I.

5.4 The circuit breaker must fail safe (open circuit) when tested as outlined in the life test of SAE J553 for 30 min or until destruction.

PREPARED BY THE SAE ELECTRICAL EQUIPMENT COMMITTEE