

EOS - Electrical Overstress in the Automotive industry

The new guide to dealing with Damage cases

An exciting news!



Editor

Quality Management Center (QMC)
German Association of the Automotive Industry e.V.

Revised by

VDA QMC China
www.vdachina.com.cn

Why a band? Causes of EOS & problems with the analysis

EOS mostly arises from excessive voltages or currents, which lead to the local destruction of semiconductor components. There are multiple reasons for that. One possibility is, for example, operation outside the electrical specification of the component.

The fact that more and more electronic components are used in vehicles and the operating voltages in the on-board electrical system are getting higher also increases the risk of further EOS-like failures.

In addition, the search for the respective cause of the overload is impossible for the supplier alone, because the relationships of the component with the application or the vehicle are very complex and usually, the individual history cannot be well known sufficiently.

Since the parties involved in the supply chain often do not cooperate sufficiently with each other, there is usually a long processing time for such damage cases. In addition, there were no rules for classifying the failures or other guidelines on how to proceed - until now!



Electrical Overstress (EOS)

electrical overload that causes thermal destroyed or damaged of electronic components such as B. diodes, ICs and sensors.

The EOS-related failures represent a major problem in the electronics sector in the automotive industry.

It must be taken into account that the proportion of electronic components in vehicles is continuously increasing and will continue to increase in the future.

With the VDA volume "EOS - Electrical Overstress in the Automotive industry", the Verband der Automobilindustrie (VDA) e. V. for the first time a systematic approach to dealing with such damage through overload.

Purpose of the VDA volume "EOS - Electrical Overstress in the Automotive Industry"

The recommendations in the new VDA volume EOS provide instructions on how to deal with failures that show signs of electrical overload within the supply chain:

- Definition of a two-stage complaint process that enables prioritization and targeted processing of such failures
- Definition of simple trigger criteria for an assignment to these two stages of the complaint process
- Provision of EOS guidelines on which information must be exchanged by the parties involved in the supply chain
- Questionnaire for creating a common perspective and defining a nomenclature



Summary

Thanks to the instructions in the VDA volume "EOS - Electrical Overstress in the Automotive Industry", the available resources should be used efficiently and thus increase the success rate in solving EOS-type failures.

In addition, structured communication and processing within the supply chain are to be optimized and their common level of knowledge increased. Ultimately, the

intention is to reduce the EOS failure rates and thus to minimize security risks.

The VDA volume EOS (Chinese version) is already launched in Q2 2020.

The VDA QMC China now offering the training course "Electrical Overstress (EOS) in the Automotive Industry", in China.

Contact

Public training

Beijing & North China
Mr. Thomas LIU
T. +86-10-65900067-260
E. bj@vdachina.com.cn

Shanghai & South China
Mr. WEN
T. +86-21-39197012
E. sh@vdachina.com.cn

In-house training

Beijing & North China
Ms. Amy ZHANG
T. +86-10-65900067-206
E. inhouse-bj@vdachina.com.cn

Shanghai & South China
Ms. Xinyu ZHANG
T. +86-21-62565183
E. xinyu.zhang@vdachina.com.cn

Standards

Ms. MI
T. +86-10-65900067-200
E. booksales@vdachina.com.cn



VDA QMC
德国汽车工业协会
质量管理中心中国分公司
CHINA

