



8711 W. Roosevelt Ave.
Visalia CA 93291
www.VoltageMultipliers.com
(P) 559.651.1402
(F) 559.651.0740

October 2nd, 2023

Optocouplers and Opto diode Part Change Notification Letter

Dear Valued Customer,

This letter is to inform you that VMI will be changing the configuration of the high voltage diode that is used in the manufacturing our optocoupler and opto diode assemblies. Our diode assembly consists of stacked silicon terminated by tungsten pins and silver leads. The optocoupler diodes are unique in that the silicon stack is cut in a round (cylindrical) shape. Due to a number of factors, we will be changing the geometry of the silicon stack from round to hexagonal. The tungsten pin and silver lead will not change. This hexagonal cut silicon stack change will not affect fit or form of the of the associated opto assemblies VMI offers. The function of the parts could be affected, depending on the exact application of the part.

Reasons for change:

Cutting the silicon stack in the round shape requires specialized equipment, the maintenance of which is no longer supported by the manufacturer. Without future support, it is a responsible decision to pivot to a sustainable and familiar process. This proactive approach helps prevent potential equipment breakdowns that could cause delivery or reliability issues with the opto products.

Risk evaluation and functional differences:

The majority of diodes produced by VMI use the hexagonal silicon stack configuration already. As a familiar and reliable process, changing these parts from cylindrical cut to hexagonal cut silicon stacks poses no production risks.

Due to the reduced surface area of the silicon stack, and the fact that the optocoupler and opto diode applications rely on the silicon being exposed to light, there will be a reduction in the typical gain percentage for the assemblies. VMI's evaluation of this change indicates that in our standard optocouplers we can expect typical gain decrease of approximately 8%. A similar decrease can be expected in applications using VMI's opto diodes, but without knowing specific application details, it is not possible to predict the exact differences for a customer's use.

VMI can supply supporting information and documentation upon request. We are also interested in working with customers to engage in unique testing as it relates to a customer's specific application.



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Implementation:

VMI will be implementing this change to our standard optocoupler and opto diode products on **12/1/2023**. For customers who require cylindrical cut silicon stack configured parts for established and qualified applications, we will work with you and put together a plan for testing hexagonal cut parts and end of life for the cylindrical cut parts.

For additional questions and information, please contact our Sales department at sales@VoltageMultipliers.com. We appreciate your ongoing partnership and look forward to continuing to supply you with the highest quality products and services to meet your current and future needs.

Best Regards,

Daniel Deschenes
Sales Engineer
d-deschenes@voltage-multipliers.com
+1 (559) 651 – 1402 ext. 1137