

Avalanche Level Test of 150V Schottky

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Because of the complicated component such as capacitance, transformer and resistance of the electronic application especially on Switched-Mode Power Supply (SMPS), the stability of the diode which playing the role of high frequency rectifier is more important in the system. There are many normal and suddenly current flowing with the forward and reverse surges on SMPS. At present, the Avalanche Level Test is the most important characteristic in deciding surge reliability of the diode to guarantee the reliability of the system.

Sirectifier Global Corp. (SGC) have the advanced process on Schottky to increasing the avalanche ability of the molybdenum (Mo) and Platinum (Pt) barrier Schottky. The following figures are the avalanche test results of SGC's 150V Schottky. Also we have the test result of competitors in the market for reference only. (The avalanche test condition is 25V DC / L = 500uH)

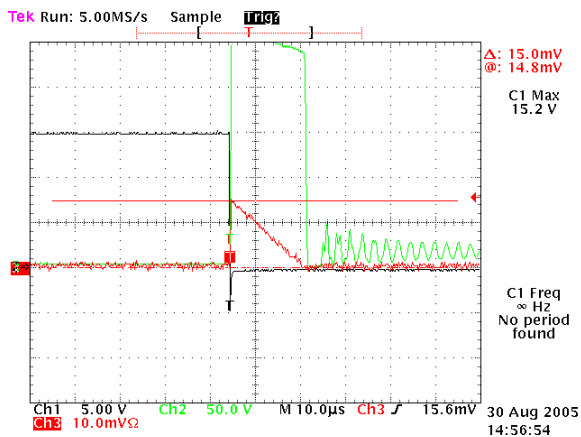


Figure 1 Avalanche Level Test –
MBR10150CT of Sirectifier, Result: 7.5A alive

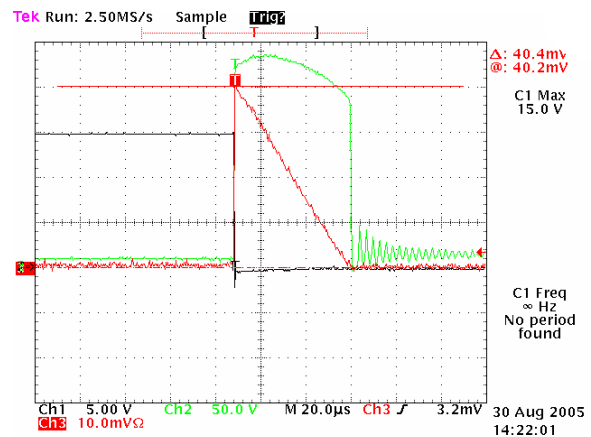
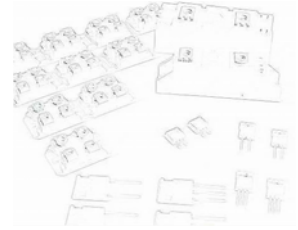


Figure 2 Avalanche Level Test –
MBR20150CT of Sirectifier, Result: 20A alive



Avalanche Level Test of 150V Schottky

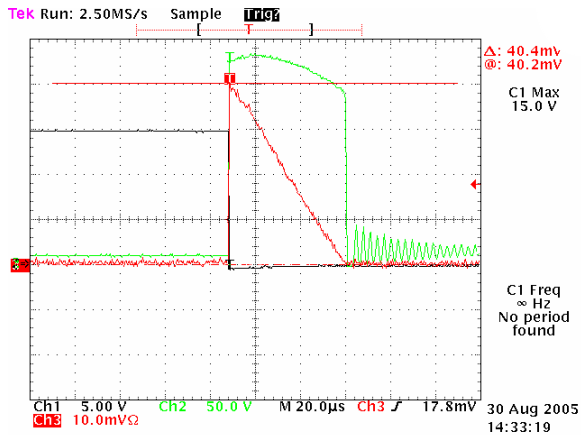


Figure 3 Avalanche Level Test –

MBR30150PT of Sirectifier, Result: 20A alive

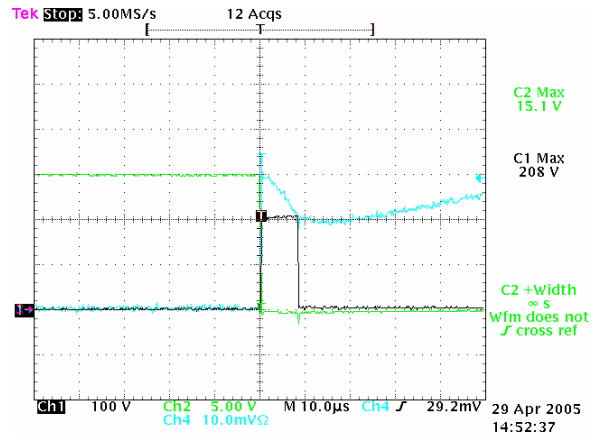


Figure 4 Avalanche Level Test –

FCH3015 from competitor, Result: 2A failure

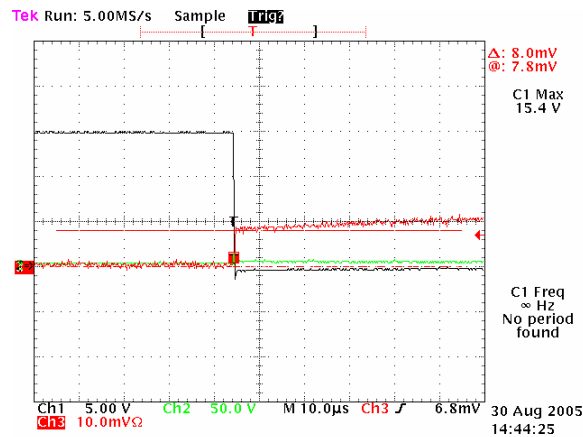


Figure 5 Avalanche Level Test –

SB10150FCT from competitor, Result: 4A failure