



130 W Cochran St, Unit B  
Simi Valley, CA 93065  
Tel:818-701-4933

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## Process Change Notification

Aug-8th-2016

**Title:** MCC Introduces Auto-Assembly Process For Some SMD TVS

**PCN#:** 080816-1

**Planned Effective Date :**Nov-8th-2016

**Reliability Data:** Available per individual request

**Samples contact:** [Sales@mccsemi.com](mailto:Sales@mccsemi.com)

**For question concerning this notification:** [techsupport@mccsemi.com](mailto:techsupport@mccsemi.com)

**Notification Type:**

Final Process/Product Change Notification(FPCN)

MCC will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact [techsupport@mccsemi.com](mailto:techsupport@mccsemi.com)



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**Description and purpose :**

To enhance the efficiency and yield of assembly process, MCC added auto assembly line for some SMD TVS products.

Internal qualification process had been finished and the result showed that the parts with new auto assembly process had the same performances as the parts we shipped before. To better track the parts with auto assembly process, MCC will revise the cathode band design for the parts with new process.

For any concern about this PCN, pls feel free to contact your local sales representative or us directly via above E-mail address.

**Qualification Data and Summary:**

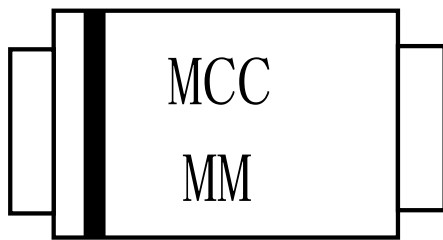
Devices were randomly selected by different voltage ratings.

**Qualification Test Result:**

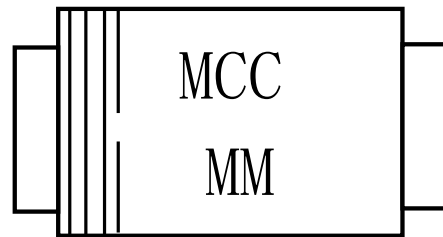
| Test                      | Condition                | Interval    | Results |
|---------------------------|--------------------------|-------------|---------|
| HTRB                      | Ta=150°C, 80% Vbr,       | 1000 Hrs    | 0/22    |
| VC                        | Ta=25°C, Rated IPP       |             | 0/22    |
| PCT                       | Ta=121°C, 100%RH, 15psig | 96 Hrs      | 0/22    |
| TC                        | -55°C~+150°C             | 1000 Cycles | 0/22    |
| Resistance to solder heat | 260°C for 10s            |             | 0/10    |
| Solderability             | 245°C for 5s             |             | 0/10    |

**Changed Part Identification:**

Devices with new process , identified with cathode band new design,see below for example:



Old



New



Micro Commercial Components®

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**Affected Parts List:**

|              |                  |                  |                  |              |                  |
|--------------|------------------|------------------|------------------|--------------|------------------|
| SMAJ100A-TP  | SMAJ33A-TP       | SMAJP4KE10CA-TP  | SMAJP4KE47CA-TP  | SMBJ170CA-TP | SMBJ7.0CA-TP     |
| SMAJ100CA-TP | SMAJ33CA-TP      | SMAJP4KE110A-TP  | SMAJP4KE51A-TP   | SMBJ17A-TP   | SMBJ7.5A-TP      |
| SMAJ10A-TP   | SMAJ36A-TP       | SMAJP4KE110CA-TP | SMAJP4KE51CA-TP  | SMBJ17CA-TP  | SMBJ7.5CA-TP     |
| SMAJ10CA-TP  | SMAJ36CA-TP      | SMAJP4KE11A-TP   | SMAJP4KE56A-TP   | SMBJ180A-TP  | SMBJ70A-TP       |
| SMAJ110A-TP  | SMAJ40A-TP       | SMAJP4KE11CA-TP  | SMAJP4KE56CA-TP  | SMBJ180CA-TP | SMBJ70CA-TP      |
| SMAJ110CA-TP | SMAJ43A-TP       | SMAJP4KE120A-TP  | SMAJP4KE6.8A-TP  | SMBJ18A-TP   | SMBJ75A-TP       |
| SMAJ11A-TP   | SMAJ43CA-TP      | SMAJP4KE120CA-TP | SMAJP4KE6.8CA-TP | SMBJ200A-TP  | SMBJ75CA-TP      |
| SMAJ11CA-TP  | SMAJ45A-TP       | SMAJP4KE12A-TP   | SMAJP4KE62A-TP   | SMBJ200CA-TP | SMBJ78A-TP       |
| SMAJ120A-TP  | SMAJ45CA-TP      | SMAJP4KE12CA-TP  | SMAJP4KE62CA-TP  | SMBJ20A-TP   | SMBJ78CA-TP      |
| SMAJ120CA-TP | SMAJ48A-TP       | SMAJP4KE130A-TP  | SMAJP4KE68A-TP   | SMBJ20CA-TP  | SMBJ8.0A-TP      |
| SMAJ12A-TP   | SMAJ48CA-TP      | SMAJP4KE130CA-TP | SMAJP4KE68CA-TP  | SMBJ220A-TP  | SMBJ8.0CA-TP     |
| SMAJ12CA-TP  | SMAJ5.0A-TP      | SMAJP4KE13A-TP   | SMAJP4KE7.5A-TP  | SMBJ220CA-TP | SMBJ8.5A-TP      |
| SMAJ130A-TP  | SMAJ5.0CA-TP     | SMAJP4KE13CA-TP  | SMAJP4KE7.5CA-TP | SMBJ22A-TP   | SMBJ8.5CA-TP     |
| SMAJ130CA-TP | SMAJ51A-TP       | SMAJP4KE150A-TP  | SMAJP4KE75A-TP   | SMBJ22CA-TP  | SMBJ85A-TP       |
| SMAJ13A-TP   | SMAJ51CA-TP      | SMAJP4KE150CA-TP | SMAJP4KE75CA-TP  | SMBJ24A-TP   | SMBJ85CA-TP      |
| SMAJ13CA-TP  | SMAJ54A-TP       | SMAJP4KE15A-TP   | SMAJP4KE8.2A-TP  | SMBJ24CA-TP  | SMBJ9.0A-TP      |
| SMAJ14A-TP   | SMAJ54CA-TP      | SMAJP4KE15CA-TP  | SMAJP4KE8.2CA-TP | SMBJ26A-TP   | SMBJ9.0CA-TP     |
| SMAJ14CA-TP  | SMAJ58A-TP       | SMAJP4KE160A-TP  | SMAJP4KE82A-TP   | SMBJ26CA-TP  | SMBJ90A-TP       |
| SMAJ150A-TP  | SMAJ58CA-TP      | SMAJP4KE160CA-TP | SMAJP4KE82CA-TP  | SMBJ28A-TP   | SMBJ90CA-TP      |
| SMAJ150CA-TP | SMAJ6.0A-TP      | SMAJP4KE16A-TP   | SMAJP4KE9.1A-TP  | SMBJ28CA-TP  | SMBJP6KE100A-TP  |
| SMAJ15A-TP   | SMAJ6.0CA-TP     | SMAJP4KE16CA-TP  | SMAJP4KE9.1CA-TP | SMBJ30A-TP   | SMBJP6KE100CA-TP |
| SMAJ15CA-TP  | SMAJ6.5A-TP      | SMAJP4KE170A-TP  | SMAJP4KE91A-TP   | SMBJ30CA-TP  | SMBJP6KE10A-TP   |
| SMAJ160A-TP  | SMAJ6.5CA-TP     | SMAJP4KE170CA-TP | SMAJP4KE91CA-TP  | SMBJ33CA-TP  | SMBJP6KE10CA-TP  |
| SMAJ160CA-TP | SMAJ60A-TP       | SMAJP4KE180A-TP  | SMBJ100A-TP      | SMBJ36A-TP   | SMBJP6KE110A-TP  |
| SMAJ16A-TP   | SMAJ60CA-TP      | SMAJP4KE180CA-TP | SMBJ100CA-TP     | SMBJ36CA-TP  | SMBJP6KE110CA-TP |
| SMAJ16CA-TP  | SMAJ64A-TP       | SMAJP4KE18A-TP   | SMBJ10A-TP       | SMBJ40A-TP   | SMBJP6KE11A-TP   |
| SMAJ170A-TP  | SMAJ64CA-TP      | SMAJP4KE18CA-TP  | SMBJ10CA-TP      | SMBJ40CA-TP  | SMBJP6KE11CA-TP  |
| SMAJ170CA-TP | SMAJ7.0A-TP      | SMAJP4KE200A-TP  | SMBJ110A-TP      | SMBJ43A-TP   | SMBJP6KE120A-TP  |
| SMAJ17A-TP   | SMAJ7.0CA-TP     | SMAJP4KE200CA-TP | SMBJ110CA-TP     | SMBJ43CA-TP  | SMBJP6KE120CA-TP |
| SMAJ17CA-TP  | SMAJ7.5A-TP      | SMAJP4KE20A-TP   | SMBJ11A-TP       | SMBJ45A-TP   | SMBJP6KE12A-TP   |
| SMAJ180A-TP  | SMAJ7.5CA-TP     | SMAJP4KE20CA-TP  | SMBJ11CA-TP      | SMBJ45CA-TP  | SMBJP6KE12CA-TP  |
| SMAJ180CA-TP | SMAJ70A-TP       | SMAJP4KE220A-TP  | SMBJ120A-TP      | SMBJ48A-TP   | SMBJP6KE130A-TP  |
| SMAJ18A-TP   | SMAJ70CA-TP      | SMAJP4KE220CA-TP | SMBJ120CA-TP     | SMBJ48CA-TP  | SMBJP6KE130CA-TP |
| SMAJ18CA-TP  | SMAJ75A-TP       | SMAJP4KE22A-TP   | SMBJ12A-TP       | SMBJ5.0A-TP  | SMBJP6KE13A-TP   |
| SMAJ200A-TP  | SMAJ75CA-TP      | SMAJP4KE22CA-TP  | SMBJ12CA-TP      | SMBJ5.0CA-TP | SMBJP6KE13CA-TP  |
| SMAJ200CA-TP | SMAJ78A-TP       | SMAJP4KE24A-TP   | SMBJ130A-TP      | SMBJ51A-TP   | SMBJP6KE150A-TP  |
| SMAJ20A-TP   | SMAJ78CA-TP      | SMAJP4KE24CA-TP  | SMBJ130CA-TP     | SMBJ51CA-TP  | SMBJP6KE150CA-TP |
| SMAJ20CA-TP  | SMAJ8.0A-TP      | SMAJP4KE27A-TP   | SMBJ13A-TP       | SMBJ54A-TP   | SMBJP6KE15A-TP   |
| SMAJ220A-TP  | SMAJ8.0CA-TP     | SMAJP4KE27CA-TP  | SMBJ13CA-TP      | SMBJ54CA-TP  | SMBJP6KE15CA-TP  |
| SMAJ220CA-TP | SMAJ8.5A-TP      | SMAJP4KE30A-TP   | SMBJ14A-TP       | SMBJ58A-TP   | SMBJP6KE160A-TP  |
| SMAJ22A-TP   | SMAJ8.5CA-TP     | SMAJP4KE30CA-TP  | SMBJ14CA-TP      | SMBJ58CA-TP  | SMBJP6KE160CA-TP |
| SMAJ22CA-TP  | SMAJ85A-TP       | SMAJP4KE33A-TP   | SMBJ150A-TP      | SMBJ6.0A-TP  | SMBJP6KE16A-TP   |
| SMAJ24A-TP   | SMAJ85CA-TP      | SMAJP4KE33CA-TP  | SMBJ150CA-TP     | SMBJ6.0CA-TP | SMBJP6KE16CA-TP  |
| SMAJ24CA-TP  | SMAJ9.0A-TP      | SMAJP4KE36A-TP   | SMBJ15A-TP       | SMBJ6.5A-TP  | SMBJP6KE170A-TP  |
| SMAJ26A-TP   | SMAJ9.0CA-TP     | SMAJP4KE36CA-TP  | SMBJ15CA-TP      | SMBJ6.5CA-TP | SMBJP6KE170CA-TP |
| SMAJ26CA-TP  | SMAJ90A-TP       | SMAJP4KE39A-TP   | SMBJ160A-TP      | SMBJ60A-TP   | SMBJP6KE180A-TP  |
| SMAJ28A-TP   | SMAJ90CA-TP      | SMAJP4KE39CA-TP  | SMBJ160CA-TP     | SMBJ60CA-TP  | SMBJP6KE180CA-TP |
| SMAJ28CA-TP  | SMAJP4KE100A-TP  | SMAJP4KE43A-TP   | SMBJ16A-TP       | SMBJ64A-TP   | SMBJP6KE18A-TP   |
| SMAJ30A-TP   | SMAJP4KE100CA-TP | SMAJP4KE43CA-TP  | SMBJ16CA-TP      | SMBJ64CA-TP  | SMBJP6KE18CA-TP  |
| SMAJ30CA-TP  | SMAJP4KE10A-TP   | SMAJP4KE47A-TP   | SMBJ170A-TP      | SMBJ7.0A-TP  | SMBJP6KE200A-TP  |



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|                  |                   |                   |                   |              |              |
|------------------|-------------------|-------------------|-------------------|--------------|--------------|
| SMBJP6KE200CA-TP | SMBJP6KE8.2A-TP   | SMCJ1.5KE18CA-TP  | SMCJ1.5KE75A-TP   | SMCJ170CA-TP | SMCJ51A-TP   |
| SMBJP6KE20A-TP   | SMBJP6KE8.2CA-TP  | SMCJ1.5KE200A-TP  | SMCJ1.5KE75CA-TP  | SMCJ17A-TP   | SMCJ51CA-TP  |
| SMBJP6KE20CA-TP  | SMBJP6KE82A-TP    | SMCJ1.5KE200CA-TP | SMCJ1.5KE8.2A-TP  | SMCJ17CA-TP  | SMCJ54A-TP   |
| SMBJP6KE220A-TP  | SMBJP6KE82CA-TP   | SMCJ1.5KE20A-TP   | SMCJ1.5KE8.2CA-TP | SMCJ180A-TP  | SMCJ54CA-TP  |
| SMBJP6KE220CA-TP | SMBJP6KE9.1A-TP   | SMCJ1.5KE20CA-TP  | SMCJ1.5KE82A-TP   | SMCJ180CA-TP | SMCJ58A-TP   |
| SMBJP6KE22A-TP   | SMBJP6KE9.1CA-TP  | SMCJ1.5KE220A-TP  | SMCJ1.5KE82CA-TP  | SMCJ18A-TP   | SMCJ58CA-TP  |
| SMBJP6KE22CA-TP  | SMBJP6KE91A-TP    | SMCJ1.5KE220CA-TP | SMCJ1.5KE9.1A-TP  | SMCJ18CA-TP  | SMCJ6.0A-TP  |
| SMBJP6KE24A-TP   | SMBJP6KE91CA-TP   | SMCJ1.5KE22A-TP   | SMCJ1.5KE9.1CA-TP | SMCJ200A-TP  | SMCJ6.0CA-TP |
| SMBJP6KE24CA-TP  | SMCJ1.5KE100A-TP  | SMCJ1.5KE22CA-TP  | SMCJ1.5KE91A-TP   | SMCJ200CA-TP | SMCJ6.5A-TP  |
| SMBJP6KE27A-TP   | SMCJ1.5KE100CA-TP | SMCJ1.5KE24A-TP   | SMCJ1.5KE91CA-TP  | SMCJ20A-TP   | SMCJ6.5CA-TP |
| SMBJP6KE27CA-TP  | SMCJ1.5KE10A-TP   | SMCJ1.5KE24CA-TP  | SMCJ100A-TP       | SMCJ20CA-TP  | SMCJ60A-TP   |
| SMBJP6KE30A-TP   | SMCJ1.5KE10CA-TP  | SMCJ1.5KE27A-TP   | SMCJ100CA-TP      | SMCJ220A-TP  | SMCJ60CA-TP  |
| SMBJP6KE30CA-TP  | SMCJ1.5KE110A-TP  | SMCJ1.5KE27CA-TP  | SMCJ10A-TP        | SMCJ220CA-TP | SMCJ64A-TP   |
| SMBJP6KE33A-TP   | SMCJ1.5KE110CA-TP | SMCJ1.5KE30A-TP   | SMCJ10CA-TP       | SMCJ22A-TP   | SMCJ64CA-TP  |
| SMBJP6KE33CA-TP  | SMCJ1.5KE11A-TP   | SMCJ1.5KE30CA-TP  | SMCJ110A-TP       | SMCJ22CA-TP  | SMCJ7.0A-TP  |
| SMBJP6KE36A-TP   | SMCJ1.5KE11CA-TP  | SMCJ1.5KE33A-TP   | SMCJ110CA-TP      | SMCJ24A-TP   | SMCJ7.0CA-TP |
| SMBJP6KE36CA-TP  | SMCJ1.5KE120A-TP  | SMCJ1.5KE33CA-TP  | SMCJ11A-TP        | SMCJ24CA-TP  | SMCJ7.5A-TP  |
| SMBJP6KE39A-TP   | SMCJ1.5KE120CA-TP | SMCJ1.5KE36A-TP   | SMCJ11CA-TP       | SMCJ26A-TP   | SMCJ7.5CA-TP |
| SMBJP6KE39CA-TP  | SMCJ1.5KE12A-TP   | SMCJ1.5KE36CA-TP  | SMCJ120A-TP       | SMCJ26CA-TP  | SMCJ70A-TP   |
| SMBJP6KE43A-TP   | SMCJ1.5KE12CA-TP  | SMCJ1.5KE39A-TP   | SMCJ120CA-TP      | SMCJ28A-TP   | SMCJ70CA-TP  |
| SMBJP6KE43CA-TP  | SMCJ1.5KE130A-TP  | SMCJ1.5KE39CA-TP  | SMCJ12A-TP        | SMCJ28CA-TP  | SMCJ75A-TP   |
| SMBJP6KE47A-TP   | SMCJ1.5KE130CA-TP | SMCJ1.5KE43A-TP   | SMCJ12CA-TP       | SMCJ30A-TP   | SMCJ75CA-TP  |
| SMBJP6KE47CA-TP  | SMCJ1.5KE13A-TP   | SMCJ1.5KE43CA-TP  | SMCJ130A-TP       | SMCJ30CA-TP  | SMCJ78A-TP   |
| SMBJP6KE51A-TP   | SMCJ1.5KE13CA-TP  | SMCJ1.5KE47A-TP   | SMCJ130CA-TP      | SMCJ33A-TP   | SMCJ78CA-TP  |
| SMBJP6KE51CA-TP  | SMCJ1.5KE150A-TP  | SMCJ1.5KE47CA-TP  | SMCJ13A-TP        | SMCJ33CA-TP  | SMCJ8.0A-TP  |
| SMBJP6KE56A-TP   | SMCJ1.5KE150CA-TP | SMCJ1.5KE51A-TP   | SMCJ13CA-TP       | SMCJ36A-TP   | SMCJ8.0CA-TP |
| SMBJP6KE56CA-TP  | SMCJ1.5KE15A-TP   | SMCJ1.5KE51CA-TP  | SMCJ14A-TP        | SMCJ36CA-TP  | SMCJ8.5A-TP  |
| SMBJP6KE6.8A-TP  | SMCJ1.5KE15CA-TP  | SMCJ1.5KE56A-TP   | SMCJ14CA-TP       | SMCJ40A-TP   | SMCJ8.5CA-TP |
| SMBJP6KE6.8CA-TP | SMCJ1.5KE160A-TP  | SMCJ1.5KE56CA-TP  | SMCJ150A-TP       | SMCJ40CA-TP  | SMCJ85A-TP   |
| SMBJP6KE62A-TP   | SMCJ1.5KE160CA-TP | SMCJ1.5KE6.8A-TP  | SMCJ150CA-TP      | SMCJ43A-TP   | SMCJ85CA-TP  |
| SMBJP6KE62CA-TP  | SMCJ1.5KE16A-TP   | SMCJ1.5KE6.8CA-TP | SMCJ15A-TP        | SMCJ43CA-TP  | SMCJ9.0A-TP  |
| SMBJP6KE68A-TP   | SMCJ1.5KE16CA-TP  | SMCJ1.5KE62A-TP   | SMCJ15CA-TP       | SMCJ45A-TP   | SMCJ9.0CA-TP |
| SMBJP6KE68CA-TP  | SMCJ1.5KE170A-TP  | SMCJ1.5KE62CA-TP  | SMCJ160A-TP       | SMCJ45CA-TP  | SMCJ90A-TP   |
| SMBJP6KE7.5A-TP  | SMCJ1.5KE170CA-TP | SMCJ1.5KE68A-TP   | SMCJ160CA-TP      | SMCJ48A-TP   | SMCJ90CA-TP  |
| SMBJP6KE7.5CA-TP | SMCJ1.5KE180A-TP  | SMCJ1.5KE68CA-TP  | SMCJ16A-TP        | SMCJ48CA-TP  |              |
| SMBJP6KE75A-TP   | SMCJ1.5KE180CA-TP | SMCJ1.5KE7.5A-TP  | SMCJ16CA-TP       | SMCJ5.0A-TP  |              |
| SMBJP6KE75CA-TP  | SMCJ1.5KE18A-TP   | SMCJ1.5KE7.5CA-TP | SMCJ170A-TP       | SMCJ5.0CA-TP |              |