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STANDARD FIELD SERVICE BULLETIN

FSB Number	CHRAEFSB2018-10
Author	Tony Bryan
Date	03/23/2018
Subject	Moto C - No Turn On/Charging - Diode Component Damage
Model Affected	XT175x
Level Of Repairs	Level 2

Problem:

Motorola is aware of a potential customer experience issue on the Moto C product where the customer may experience the device Does Not Charge.

Analysis revealed the issue to be linked to the TVS6402/D2 diode component on Main PCBA may be damaged as shown in Figure 1.0 below.

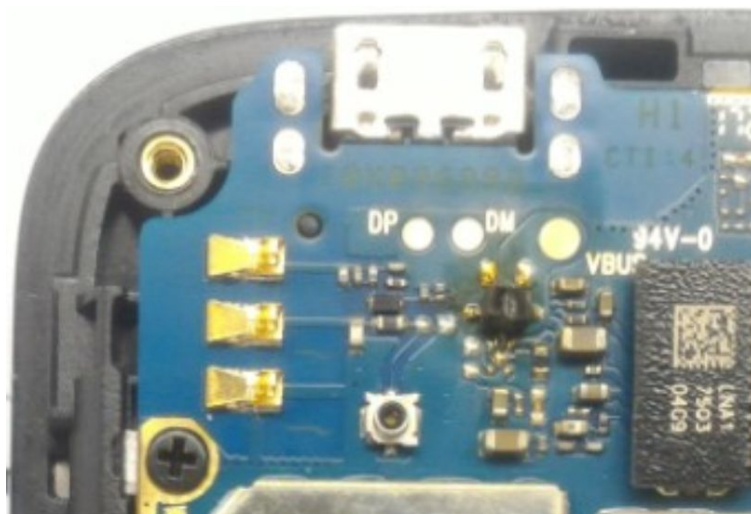


Figure 1.0 - TVS6402/D2 Diode Component Damaged

Solution:

An engineering change was made to the TVS6402/D2 diode component selected to increase the voltage rating from 12V to 15V and as a result improve overall USB Charging Circuit robustness against electrical overstress. - Production BOM's Updated as of 9/29/2017

Field Service Action:

When servicing customer returns on the Moto C product, with customer complaints related to Does Not Charge, then:

1. Confirm the customer complaint by testing the charging functionality of the device using approved testing procedures, If confirmed:
 - a. Per Service Manual, carefully disassemble the device to gain access to the Main PCBA.
 - b. Confirm if the TVS6402/D2 diode component (Figure 1.0 above) is damaged.
 - c. If component is damaged, replace with a new TVS6402/D2 diode component (Part Number: 811210000291 or 811210000292).
 - i. If component is not damaged, then follow normal troubleshooting techniques per this customer complaint.
 - d. Retest the charging functionality of the device using approved testing procedures
 - e. If the issue persists, then this bulletin does not apply. Proceed to troubleshoot per standard service policies.
 - f. Per Service Manual, carefully reassemble the device.
 - g. Completely retest the device per standard Service procedure to ensure proper operation after repair.
2. If Does Not Charge symptom is not replicated, then:
 - a. Per Service Manual, carefully disassemble the device to gain access to the Main PCBA.
 - b. Regardless of seeing TVS6402/D2 diode component (Part Number: 811210000291 or 811210000292) damaged, replace the component as preventative measure to improve overall USB Charging Circuit robustness against electrical overstress.
 - c. Per Service Manual, carefully reassemble the device.
 - d. Completely retest the device per standard Service procedure to ensure proper operation after repair.

Important Note: The TVS6402/D2 diode component (Part Number: 811210000291 or 811210000292) has polarity (CAN ONLY BE PLACED ONE DIRECTION). Reference Figure 2.0 below.

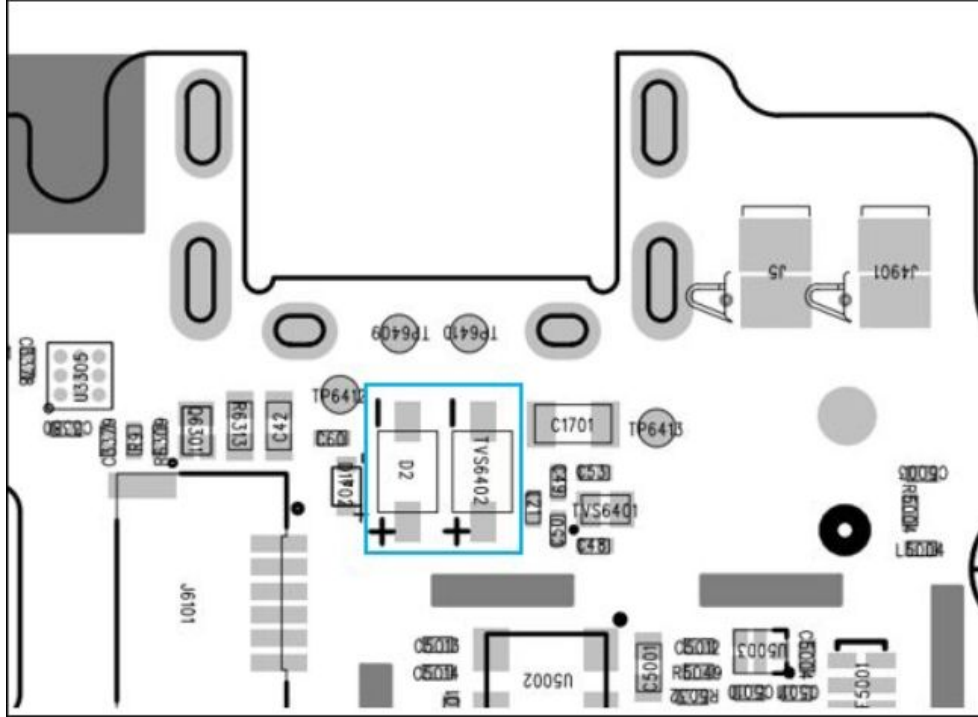


Figure 2.0 - Component Polarity and Placement Location

Service Inventory:

New Part added to SBOM - Version 2.9

- Order and stock inventory of TVS6402/D2 diode component (Part Number: 811210000291 or 811210000292) to support field replacement, per this bulletin.

Call Center Action:

When responding to customer inquiries on the Moto C product with Does Not Charge issue, then:

1. Follow normal troubleshooting steps to resolve the customer's issue.
2. If issue cannot be resolved with normal troubleshooting steps, then instruct the customers to return their device to Motorola Service for repair, per this bulletin.

Service Entry Code:

Global M-Claims Codes:

Customer Complaint Code:

- C0019 - Power On/Off Issues
- C0028 - Charging/Battery Issue

Problem Found Code: P0052 - Charging

REF Designator Code: RD076 - VR

Repair Code: R0082 - REPL LVL 2.5 Part CSB

Note:

Only apply the designated Service Entry Codes, listed in this bulletin, if the unit fails a test or has a customer complaint that matches the issue described in the bulletin

If the unit fails a test or has a customer complaint that does not match the issue described in the bulletin, the Service Entry Codes used should accurately reflect the true problem found

If the unit passes all tests and inspections and does not have a related customer complaint, the Service Entry Code used should be NFF