

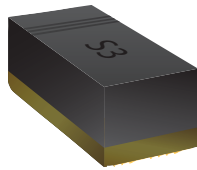
# Product Change Notification

## CHIP DIODES

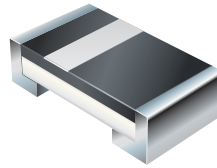
April, 2013 - REVISED February, 2015

### Model CD0603-S01575 Switching Chip Diode Series Change in Assembly/Test Location and Package Format

In order to support our fast growing demand, secure continuity of supply and provide maximum flexibility to our customers, Bourns is moving the assembly/test location of Model CD0603-S01575 Switching Chip Diode Series from Taiwan to China. At the new site, a new package format for assembly of same die will be implemented.



*Existing Package*



*New Package*

#### **Product Labeling:**

Product marking is removed, as shown above. Labels will show the country of origin code.

#### **Identification of the Changed Product:**

Bourns maintains traceability back to source wafer lots and assembly sites for all products.

#### **Impact on Form, Fit, Function and Reliability:**

There is no impact on function or reliability but form and fit will change to the new package dimensions. The new package, like the existing package, will fit the “0603” footprint.

#### **Implementation Dates are as Follows:**

- Last date of manufacture of existing product: Bourns will discontinue assembly and testing of the product at its existing Taiwan assembly site as it moves to the new site in China using a new chip package format.
- Deliveries to customers from the new site in China may occur from July 31, 2013 onward. Earlier shipments are available upon request.
- First date code from new site: 1331

#### **New Assembly/Test Location Qualification:**

Qualification Information and Results at the new assembly/test location with the new package format are as follows.

**Qualification Information:**

All Products	
Die Technology	Switching Diode
Product Name	CD0603-S01575
Top Metal	Ag
Back Metal	Ag
Assembly Site	China
Pins/Package	2 Lead/0603
Mold Compound	N/A
Die Attach	Ag
Bond Wire	N/A
L/F Material	Copper
Marking	Laser
Termination Finish	Matte Sn (Pb Free)

**Qualification Results:**

No.	Item	Standard	Test Procedure	Results (Fail/Pass)
1	Solderability	MIL-STD-202G, METHOD 208H	245 ± 5 °C, 2 ± 0.5 sec. solder bath dipping. Termination tinned area covered >95 %.	0/540
2	Steam Aging Solderability	JESD22-B102-C	98 ± 3 °C, 100 % RH, 4 hrs., then for solderability test. Termination tinned area covered >95 %.	0/540
3	Coating Resist	Application	260 ± 5 °C, 10 ± 1 sec., then friction by cotton stick. No visual damage on protective layer and marking.	0/540
4	Plating Thickness	Process control	3~15 um	0/540
5	Forward Surge Current	MIL-STD-750D, METHOD 4066.4	I <sub>F</sub> =500 mA for 1 sec. No breakdown, electrical properties within spec.	0/540
6	Resistance to Soldering Heat	MIL-STD-750D, METHOD 2031.2	260 ± 5 °C, 10 ± 1 sec. solder bath dipping. No mechanical damage, electrical properties within spec.	0/540
7	High Pressure Steady State	JESD22-A102-B	121 °C, 15 PSIG (101 KPa) 100 % RH for 24 hrs. Electrical properties within spec.	0/540
8	Thermal Shock	MIL-STD-750D, METHOD 1056.7	-55 ± 3 °C/5 min. --> 150 ± 3 °C/5 min. for 10 cycles. Electrical properties within spec.	0/540
9	Bending	MIL-STD-750D, METHOD 2036.4	Bend 2 mm. No mechanical damage, electrical properties within spec.	0/44
10	Temperature Cycle	MIL-STD-750D, METHOD 1051.5	-55 ± 3 °C/30 min. --> 25 ± 3 °C/10 min. --> 150 ± 3 °C/30 min. --> 25 ± 3 °C/10 min. for 20 cycles. Electrical properties within spec.	0/180
11	Humidity Steady State	MIL-STD-202G, METHOD 103B	85 ± 3 °C, 85 % RH for 168 hrs. Electrical properties within spec.	0/180

**Qualification Results (Continued):**

No.	Item	Standard	Test Procedure	Results (Fail/Pass)
12	Continue Forward Operating Life	MIL-STD-750D, METHOD 1026.5	$I_F = 1.1 \cdot I_O$ (165 mA), load for 1000 hrs. Electrical properties within spec.	0/180
13	Intermittent Forward Operating Life	MIL-STD-750D, METHOD 1036.3	$I_F = 1.5 \cdot I_O$ (225 mA), ON 5 min. & OFF 5 min., load for 1000 cycles. Electrical properties within spec.	0/180
14	High Temperature Reverse Bias	MIL-STD-750D, METHOD 1038.4	$150 \pm 3 \text{ }^\circ\text{C}$ , $V_R = 80\%$ RATED VR (60 V), load for 1000 hrs. Electrical properties within spec.	0/180

If you have any questions or need additional information, please feel free to contact [Customer Service/Inside Sales](#).