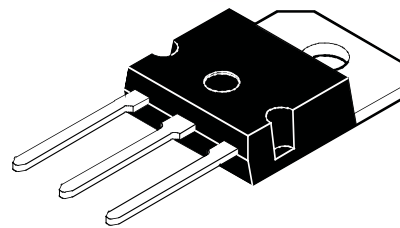


# Product Update Memo

## CIRCUIT PROTECTION PRODUCTS

February, 2006

Bourns Manufacturers Representatives  
Corporate Distributor Product Managers  
Americas Sales Team  
Asia Sales Team  
Europe Sales Team



### SOT-93 Packaged Power Transistor & Thyristor Product Change Notification PCN Tracking Number BLBF40 - Mold Compound Change

This change notification covers a change to the epoxy mold compound used for encapsulation of SOT-93 products assembled by PSI Technologies Inc, Manila, Philippines.

The change is:

From: **MP150SG**, manufactured by Nitto

To: **MG15G-1040R**, manufactured by Loctite (formerly Dexter Hysol)

#### Products Affected by the Change:

All products assembled in SOT-93 package are affected. These include catalog power transistors and thyristors and customer specific products.

#### Reason for the Change:

Rationalization of mold compounds in the assembly/test site.

#### Product Labeling:

No change to the product labeling.

#### Identification of the Changed Product:

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

#### Implementation Date:

Shipments of finished goods including the new mold compound are expected to commence in March 2006.

#### Commencing Date Code:

612

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

There is no impact. MG15F-1040R is recognized by UL and listed in E34947. The flammability rating is V-O.

#### Qualification Plan:

Following page.

**Last Date of Manufacture of Unchanged Product:**

March 2006

**Qualification Information as Follows:**

Die Technology	Bipolar Transistor
Die Name	As Qual Plan Table (Row 2)
Top Metal	Al
Back Metal	AlTiNiAu
Assembly Site	PSI, Technologies, Manila, Philippines
Pins/Package	3/SOT-93
Mold Compound	MG15F-0140R
Die Attach	Solder (>88% Pb)
Wire Bond	Aluminum
L/F Material	Copper
Marking	Laser
Termination Finish	Hot Dipped SnAgCu

**Qualification Tests:**

Stress Test/Conditions	QSS (1)	Standard	Method	SS/Accept
HTRB, 150 °C, 1000 h with bias	009-101	MIL STD 883	1015	129/1
85 °C/85 % RH, 50 V, 1000 h	009-102	JEDEC STD 22	A101	129/1
Temperature Cycle -65/+150 °C, 200cs	009-104	MIL STD 883	1010	129/1
Solder Heat	009-106	MIL STD 750	2031	22/0
Lead Pull	009-110	MIL STD 883	2004	22/0

Notes:

1. QSS Specifications are Bourns Internal Qualification Standards.

**Qualification Plan:**

	<b>Lot Number:</b> <b>Product Name:</b> <b>Product Technology:</b> <b>Die Name:</b>	<b>Lot 1</b> <b>R3381-S</b> <b>Transistor</b> <b>SD140BX</b>	<b>Lot 2</b> <b>BUV48A</b> <b>Transistor</b> <b>PL765BQ</b>
<b>HTRB</b>		65/0	65/0
<b>85 °C/85 % RH</b>		65/0	65/0
<b>Temperature Cycle</b>		65/0	65/0
<b>Solder Heat</b>		12/0	12/0
<b>Lead Pull</b>		12/0	12/0

**Stress Test Completion Date:**

June 2006

### SOT-93 Parts Sold

BD245	BD249B	BD746B	BDV66	BU426A	R3498	TIP141-S	TIP33A-S	TIPL761
BD245A	BD249B-S	BD746C	BDV66-S	BU426A-S	R3498-S	TIP142	TIP33C	TIPL761-S
BD245A-S	BD249C	BD746C-S	BDW83B	BU426-S	R3499	TIP142-S	TIP33C-S	TIPL762
BD245B	BD249C-S	BDV64	BDW83B-S	BU466	R3499-S	TIP145	TIP34A	TIPL762A
BD245B-S	BD249-S	BDV64A	BDW83C	BU466-S	TIC253D	TIP145-S	TIP34A-S	TIPL762A-S
BD245C	BD250	BDV64A-S	BDW83C-S	BUV47	TIC253D-S	TIP146	TIP34C	TIPL762-S
BD245C-S	BD250A	BDV64B	BDW83D	BUV47A	TIC253M	TIP146-S	TIP34C-S	TIPL763
BD245-S	BD250A-S	BDV64B-S	BDW83D-S	BUV47A-S	TIC253M-S	TIP147	TIP35A	TIPL763-S
BD246	BD250B	BDV64C	BDW84	BUV47-S	TIC253N	TIP147-S	TIP35A-S	TIPL764
BD246A	BD250B-S	BDV64C-S	BDW84B	BUV48	TIC253N-S	TIP160	TIP35B	TIPL764-S
BD246A-S	BD250C	BDV64-S	BDW84B-S	BUV48A	TIC263D	TIP160-S	TIP35B-S	TIPL765A
BD246B	BD250C-S	BDV65	BDW84C	BUV48A-S	TIC263D-S	TIP161	TIP35C	TIPL765A-S
BD246B-S	BD250-S	BDV65A	BDW84C-S	BUV48-S	TIC263M	TIP162	TIP35C-S	
BD246C	BD251	BDV65A-S	BDW84D	BUV49	TIC263M-S	TIP162-S	TIP36B	
BD246C-S	BD251-S	BDV65B	BDW84D-S	BUV49-S	TIC263N	TIP2955	TIP36B-S	
BD246-S	BD745B	BDV65B-S	BDW84-S	R3381	TIC263N-S	TIP2955-S	TIP36C	
BD249	BD745B-S	BDV65C	BDW85	R3381-S	TIP140	TIP3055	TIP36C-S	
BD249A	BD745C	BDV65C-S	BDW85-S	R3497	TIP140-S	TIP3055-S	TIP9105	
BD249A-S	BD745C-S	BDV65-S	BU426	R3497-S	TIP141	TIP33A	TIP9105-S	