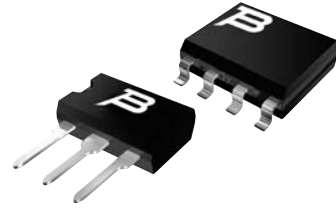


# Product Update Memo

## CIRCUIT PROTECTION PRODUCTS

May, 2006

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



### Thyristor Surge Protector Product Change Notification PCN Tracking Number 43 - Chip Metallization Change

In July 2005 (PCN #37), Bourns announced a change in the wafer metallization system for all overvoltage protection products assembled in SMA and SMB packages. The change replaced a vacuum-deposited metal system with a plated metal structure. This change note extends that change to thyristor surge protection products assembled in 8SOP and SIP packages.

The change applies to the chip backside metallization structure only. There is no change to the single layer of aluminum metallization on the topside of the chip designed to facilitate thermosonic wirebonding.

#### **Products Affected by the Change:**

All overvoltage protection products assembled using the 8 pin SOP (150 mil), MS-012, JEDEC 95, 8 pin SOP (210 mil) and 3 pin SIP (SL and SLL) packages.

A list of products is provided as an attachment to this document.

#### **Reason for the Change:**

Extension of the plating technology introduced in 3Q05 for Thyristor Surge Protectors in SMA and SMB packages to other Thyristor Surge Protector packages.

#### **Product Labeling:**

Product marking is unchanged.

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

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

#### **Implementation Date:**

Assembly of product will begin in August 2006. Shipments of finished goods to customers may occur from September 2006 onwards.

#### **First Date Code from New Site:**

0634

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

None. Product ratings and electrical characteristics are unaffected by the change.

**Qualification Plan:**

Following page.

**Last Date of Manufacture of Existing Product:**

When existing inventory and WIP is consumed.

**Qualification Information as Follows:**

<b>All Products</b>	
Die Technology	Thyristor Overvoltage Protector
Product Name	As Table (Row 1)
Die Name	As Table (Row 2)
Die Size (mil)	As Table (Row 3)
Top Metal	Al
Back Metal	Al + NiAu (was AlTiNiAu)
Assembly Site	ASE Taiwan, IDS Malaysia, Omedata Indonesia
Pins/Package	8/150SOP, 8/210SOP & 3/SIP
Mold Compound	Sumitomo EME 6600
Die Attach	Hitachi CRM1033D
Bond Wire	Multiple 2 Mil Au
L/F Material	Copper
Marking	Laser
Termination Finish	Matte Sn (Pb Free)

**Qualification Samples Taken from Four Wafer Fabrication Lots:**

					Test Plan			
					Lot 1	Lot 2	Lot 3	Lot 4
					61089D	Custom	6NTP2CD	61089HDM
					TG605TQ	TT380TQ	TG435TQ	TD635TQ
					100 x 75	124 x 92	136 x 76	136 x 76
Stress Test	Conditions	Standard	Method	SS/Acc	150 SOP	150 SOP	150 SOP	210 SOP
Moisture Induced Stress Sensitivity		EIA/JESD22	A112	Level1	6/0	6/0	6/0	6/0
HTRB,	150 °C, 1000 h	MIL STD 750	1048	129/1	45	105/0	45	45
THB	85 °C/85 %RH, 1000 h	JEDEC STD 22	A101	129/1	45	77/0	45	45
T Cycle	65/+150 °C, 200 cs	MIL STD 883	2031	129/1	45	45	45	45
Die Shear	-	MIL STD 883	2019	5/0	5/0	5/0	5/0	5/0
10/1000 μs Surge	-	GR1089-CORE	-	16/0	16/0	16/0	16/0	16/0
X-Ray	-	MIL STD 883	2012	5/0	5/0	5/0	5/0	5/0

**Stress Test Completion Date:**

August 2006

## Parts Sold

R1W065DR	TISP1072F3D-S	TISP3072F3DR-S	TISP3290H3SL-S	TISP61089ASD	TISP7072F3SL	TISP7290F3D-S
R1W065DR-S	TISP1072F3SL	TISP3072F3D-S	TISP3320F3SL	TISP61089ASDR	TISP7072F3SL-S	TISP7290F3SL
R3224SL	TISP1072F3SL-S	TISP3072F3SL	TISP3320F3SL-S	TISP61089ASDR-S	TISP7080H3SL	TISP7290F3SL-S
R3224SL-S	TISP1082F3DR	TISP3072F3SL-S	TISP3350H3SL	TISP61089ASD-S	TISP7080H3SL-S	TISP7290H3SL
R3280SL	TISP1082F3DR-S	TISP3080H3SL	TISP3350H3SL-S	TISP61089BD	TISP7082F3D	TISP7290H3SLL
R3280SL-S	TISP1082F3SL	TISP3080H3SL-S	TISP3380F3DR	TISP61089BDR	TISP7082F3DR	TISP7290H3SLL-S
R3589DR	TISP1082F3SL-S	TISP3082F3DR	TISP3380F3DR-S	TISP61089BDR-S	TISP7082F3DR-S	TISP7290H3SL-S
R3589DR-S	TISP2072F3D	TISP3082F3DR-S	TISP3380F3SL	TISP61089BD-S	TISP7082F3D-S	TISP7320F3DR
R3601	TISP2072F3D-S	TISP3082F3SL	TISP3380F3SL-S	TISP61089D	TISP7082F3SL	TISP7320F3DR-S
R3601DR	TISP2072F3SL	TISP3082F3SL-S	TISP3600F3SL	TISP61089DR	TISP7082F3SL-S	TISP7320F3SL
R3601DR-S	TISP2072F3SL-S	TISP3095H3SL	TISP3600F3SL-S	TISP61089DR-S	TISP7095H3SL	TISP7320F3SL-S
R3601-S	TISP2082F3D	TISP3095H3SL-S	TISP3700F3SL	TISP61089D-S	TISP7095H3SL-S	TISP7350F3D
R3602CDR	TISP2082F3DR	TISP3115H3SL	TISP3700F3SL-S	TISP61089HDM	TISP7125F3DR	TISP7350F3D-S
R3602CDR-S	TISP2082F3DR-S	TISP3115H3SL-S	TISP4072F3D	TISP61089HDMR-S	TISP7125F3DR-S	TISP7350F3SL
R3602DR	TISP2082F3D-S	TISP3125F3DR	TISP4072F3DR	TISP61089HDM-S	TISP7125F3SL	TISP7350F3SL-S
R3602DR-S	TISP2125F3DR	TISP3125F3DR-S	TISP4072F3DR-S	TISP61511D	TISP7125F3SL-S	TISP7350H3SL
R3604-1DR	TISP2125F3DR-S	TISP3125F3SL	TISP4072F3D-S	TISP61511DR	TISP7145H3SL	TISP7350H3SL-S
R3604-1DR-S	TISP2150F3D	TISP3125F3SL-S	TISP4072F3SL	TISP61511DR-S	TISP7145H3SL-S	TISP7380F3D
R3604-2DR	TISP2150F3DR	TISP3125H3SL	TISP4072F3SL-S	TISP61521DR	TISP7150F3DR	TISP7380F3DR
R3604-2DR-S	TISP2150F3DR-S	TISP3125H3SL-S	TISP4082F3SL	TISP61521DR-S	TISP7150F3DR-S	TISP7380F3DR-S
R3604-3DR	TISP2150F3D-S	TISP3135H3SL	TISP4082F3SL-S	TISP61521DR-S	TISP7150F3SL	TISP7380F3D-S
R3604-3DR-S	TISP2150F3SL	TISP3135H3SL-S	TISP4082LP	TISP6L7591DR	TISP7150F3SL-S	TISP7400H3SL
R3604-4DR	TISP2150F3SL-S	TISP3145H3SL	TISP4082LP-S	TISP6L7591DR-S	TISP7165H3SL	TISP7400H3SL-S
R3604-4DR-S	TISP2180F3D	TISP3145H3SL-S	TISP4150F3D	TISP6NTP2AD	TISP7165H3SL-S	TISP8200MDR
R3606DR10	TISP2180F3DR	TISP3150F3DR	TISP4150F3D-S	TISP6NTP2ADR	TISP7180F3D	TISP8200MDR-S
R3606DR10-S	TISP2180F3DR-S	TISP3150F3DR-S	TISP4160LPR	TISP6NTP2ADR-S	TISP7180F3DR	TISP8201MDR
R3618SLLA	TISP2180F3D-S	TISP3150F3SL	TISP4160LPR-S	TISP6NTP2AD-S	TISP7180F3DR-S	TISP8201MDR-S
R3618SLLA-S	TISP2180F3SL	TISP3150F3SL-S	TISP4180F3DR	TISP6NTP2BD	TISP7180F3D-S	TISP8250D
R3620DR	TISP2180F3SL-S	TISP3180F3D	TISP4180F3DR-S	TISP6NTP2BDR	TISP7180F3SL	TISP8250DR
R3620DR-S	TISP2240F3D	TISP3180F3DR	TISP4180F3SL	TISP6NTP2BDR-S	TISP7180F3SL-S	TISP8250DR-S
R3653-3DR	TISP2240F3DR	TISP3180F3DR-S	TISP4180F3SL-S	TISP6NTP2BD-S	TISP7180H3SL	TISP8250D-S
R3653-3DR-S	TISP2240F3DR-S	TISP3180F3D-S	TISP4260F3SL	TISP6NTP2CD	TISP7180H3SL-S	TISP83121D
R3653-4DR	TISP2240F3D-S	TISP3180F3SL	TISP4260F3SL-S	TISP6NTP2CDR	TISP7220H3SL	TISP83121DR
R3653-4DR-S	TISP2260F3DR	TISP3180F3SL-S	TISP4290F3D	TISP6NTP2CDR-S	TISP7220H3SL-S	TISP83121DR-S
R3679DR	TISP2260F3DR-S	TISP3180H3SL	TISP4290F3DR	TISP6NTP2CD-S	TISP7240F3DR	TISP83121D-S
R3679DR-S	TISP2290F3D	TISP3180H3SL-S	TISP4290F3DR-S	TISP70151D	TISP7240F3DR-S	TISP9110LDMR
R3762	TISP2290F3DR	TISP3210H3SL	TISP4290F3D-S	TISP70151D-S	TISP7240F3SL	TISP9110LDMR-S
R3762-S	TISP2290F3DR-S	TISP3210H3SL-S	TISP4290F3SL	TISP7015DR	TISP7240F3SL-S	TISP9110LDM-S
R3763	TISP2290F3D-S	TISP3240F3SL	TISP4290F3SL-S	TISP7015DR-S	TISP7250H3SL	TISPA79R241DR
R3763-S	TISP2290F3SL	TISP3240F3SL-S	TISP4320F3SL	TISP7015L1D	TISP7250H3SLL	TISPA79R241DR-S
R7W080DR	TISP2290F3SL-S	TISP3250H3SL	TISP4320F3SL-S	TISP7015L1DR	TISP7250H3SLL-S	TISPL758LF3DR
R7W080DR-S	TISP2320F3DR	TISP3250H3SL-S	TISP4380F3D	TISP7015L1DR-S	TISP7250H3SL-S	TISPL758LF3DR-S
R7W120DR	TISP2320F3DR-S	TISP3260F3SL	TISP4380F3DR	TISP7015L1D-S	TISP7260F3D	
R7W120DR-S	TISP2380F3DR	TISP3260F3SL-S	TISP4380F3DR-S	TISP7038L1DR	TISP7260F3DR	
R7W200DR	TISP2380F3DR-S	TISP3290F3DR	TISP4380F3D-S	TISP7038L1DR-S	TISP7260F3DR-S	
R7W200DR-S	TISP3070H3SL	TISP3290F3DR-S	TISP61060DR	TISP7070H3SL	TISP7260F3D-S	
R7W270DR	TISP3070H3SLL	TISP3290F3SL	TISP61060DR-S	TISP7070H3SL-S	TISP7260F3SL-S	
R7W270DR-S	TISP3070H3SLL-S	TISP3290F3SL-S	TISP61089AD	TISP7072F3D	TISP7260F3SL-S	
TISP1072F3D	TISP3070H3SL-S	TISP3290H3SL	TISP61089ADR	TISP7072F3DR	TISP7290F3D	
TISP1072F3DR	TISP3072F3D	TISP3290H3SLL	TISP61089ADR-S	TISP7072F3DR-S	TISP7290F3DR	
TISP1072F3DR-S	TISP3072F3DR	TISP3290H3SLL-S	TISP61089AD-S	TISP7072F3D-S	TISP7290F3DR-S	