# Product Update Memo

#### CIRCUIT PROTECTION PRODUCTS

April, 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 42 - New Assembly/Test Site

Bourns is qualifying an additional assembly/test site for manufacture of overvoltage protectors in 8 pin SOP (150mil) packages (MS012, JEDEC 95).

The new site is IDS Electronics SDN BHD, IDS Park, Seri Iskandar, 32600 Bota, Perak Darul Ridzuan, Malaysia.

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

All overvoltage protection products assembled using the 8 pin SOP (150mil) package, MS-012, JEDEC 95.

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

#### Reason for the Change:

Additional assembly and test capacity.

#### **Product Labeling:**

Product marking is unchanged except for country code information. Labels will show the country of origin code.

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

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

#### **Implementation Date:**

Assembly of product will begin July 2006. Shipments of finished goods from the new site to customers may occur from July 2006 onwards.

#### First Date Code from New Site:

0627

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

None. The package outline dimensions will continue to meet MS012, JEDEC 95 and the current Bourns datasheet. Materials specified for packaging are unchanged. Product ratings and electrical characteristics are unaffected by the change.

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### **Qualification Plan:**

Following page.

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

May continue indefinitely.

#### **Qualification Information as Follows:**

All Products				
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	AlTiNiAu			
Assembly Site	IDS, Malaysia			
Pins/Package	8/SOIC			
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	Custom	
					TG605TQ	TT380TQ	TG435TQ	TG500TQ	
Stress Test	Conditions	Standard	Method	SS/Acc	100 x 75	124 x 92	136 x 76	136 x 76	
Moisture Induce	Moisture Induced Stress Sensitivity		A112	Level1	6/0	6/0	6/0	6/0	
HTRB	150°C,1000h	MIL STD 750	1048	129/1	45	105/0	45	45	
THB	85°C/85%RH, 1000h	JEDEC STD 22	A101	129/1	45	77/0	45	45	
T Cycle	65/+150°C, 200cs	MIL STD 883	2031	129/1	45	45	45	45	
Solderability	8h Steam	MIL STD 883	2003	32/0	32/0	32/0	32/0	32/0	
Lead Fatigue	-	MIL STD 883	2004	22/0	8/0	8/0	8/0	8/0	
Lead Pull	-	MIL STD 883	2004	22/0	8/0	8/0	8/0	8/0	
Lead Adhesion	-	MIL STD 883	2025	15/0	8/0	8/0	8/0	8/0	
Dimensions	Datasheet	MIL STD 883	2025	5/0	5/0				
Flammability		UL94-V0			Manufacturer's datasheet				
Bond Strength	-	MIL STD 883	2011	76/0	76/0	76/0	76/0	76/0	
Die Shear	-	MIL STD 883	2019	5/0	5/0	5/0	5/0	5/0	
X-Ray	-	MIL STD 883	2012	5/0	5/0	5/0	5/0	5/0	

# **Stress Test Completion Date:**

June 2006

# **Part Numbers in SOIC**

R1W065DR	R7W200DR	TISP2380F3DR	TISP61060DR	TISP6NTP2BDR	TISP7290F3DR
R1W065DR-S	R7W200DR-S	TISP3072F3D	TISP61089AD	TISP6NTP2BDR-S	TISP7290F3DR-S
R3589DR	R7W270DR	TISP3072F3DR	TISP61089ADR	TISP6NTP2CD	TISP7320F3DR
R3601DR	TISP1072F3D	TISP3072F3DR-S	TISP61089ADR-S	TISP6NTP2CDR	TISP7320F3DR-S
R3602CDR	TISP1072F3DR	TISP3072F3D-S	TISP61089AD-S	TISP6NTP2CDR-S	TISP7350F3D
R3602DR	TISP1072F3DR-S	TISP3082F3DR	TISP61089ASD	TISP6NTP2CD-S	TISP7380F3D
R3604-1DR	TISP1082F3DR	TISP3082F3DR-S	TISP61089ASDR	TISP70151D	TISP7380F3DR
R3604-1DR-S	TISP2072F3D	TISP3125F3DR	TISP61089ASDR-S	TISP7015DR	TISP7380F3DR-S
R3604-2DR	TISP2082F3D	TISP3125F3DR-S	TISP61089BD	TISP7015L1D	TISP8200MDR
R3604-3DR	TISP2082F3DR	TISP3150F3DR	TISP61089BDR	TISP7015L1DR	TISP8200MDR-S
R3604-3DR-S	TISP2082F3DR-S	TISP3180F3D	TISP61089BDR-S	TISP7038L1DR	TISP8201MDR
R3604-4DR	TISP2125F3DR	TISP3180F3DR	TISP61089D	TISP7072F3D	TISP8201MDR-S
R3604-4DR-S	TISP2125F3DR-S	TISP3180F3DR-S	TISP61089DR	TISP7072F3DR	TISP8250D
R3606DR10	TISP2150F3D	TISP3290F3DR	TISP61089DR-S	TISP7082F3D	TISP8250DR
R3620DR	TISP2150F3DR	TISP3380F3DR	TISP61089D-S	TISP7082F3DR	TISP83121D
R3653-3DR	TISP2180F3D	TISP4072F3D	TISP61511D	TISP7082F3DR-S	TISP83121DR
R3653-4DR	TISP2180F3DR	TISP4072F3DR	TISP61511DR	TISP7125F3DR	TISP83121DR-S
R3679DR	TISP2180F3DR-S	TISP4072F3DR-S	TISP61511DR-S	TISP7150F3DR	TISP83121D-S
R3679DR-S	TISP2180F3D-S	TISP4150F3D	TISP61511D-S	TISP7180F3D	TISPA79R241DR
R3762	TISP2240F3D	TISP4180F3DR	TISP61521DR	TISP7180F3DR	TISPL758LF3DR
R3762-S	TISP2240F3DR	TISP4290F3D	TISP61521DR-S	TISP7180F3DR-S	TISPL758LF3DR-S
R3763	TISP2260F3DR	TISP4290F3DR	TISP6L7591DR	TISP7180F3D-S	
R3763-S	TISP2260F3DR-S	TISP4290F3DR-S	TISP6NTP2AD	TISP7240F3DR	
R7W080DR	TISP2290F3D	TISP4380F3D	TISP6NTP2ADR	TISP7260F3D	
R7W080DR-S	TISP2290F3DR	TISP4380F3DR	TISP6NTP2ADR-S	TISP7260F3DR	
R7W120DR	TISP2320F3DR	TISP4380F3DR-S	TISP6NTP2BD	TISP7290F3D	