

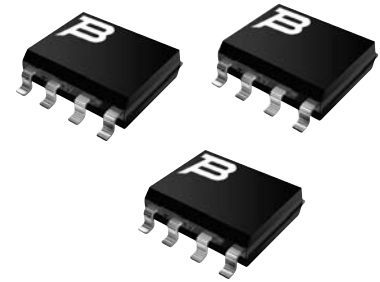


# Product Change Notification

## THYRISTOR SURGE PROTECTORS

August 2007

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



### **PCN Tracking Number 45 New Assembly/Test Site & Green Mold Compound**

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

The new site is Cirtek Electronics Corporation, 116 East Main Avenue, Phase V, SEZ Laguna Technopark, Binan, Laguna, Philippines.

Products manufactured at this plant will be manufactured using a (green) mold compound formulation, Sumitomo G600, that contains no flame retardant compounds which are brominated or antimony based.

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

All overvoltage protection products assembled using the 8 pin SOP (150 mil) 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. There is an industry-wide transition underway to (green) mold compounds which do not contain synergetic brominated or antimony compounds.

#### **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 and assembly sites for all products.

#### **Implementation Date:**

Assembly of product will begin September 2007. Deliveries to customers may occur from October 2007 onwards.

**First Date Code from New Site:**

0739

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

The package outline dimensions will continue to meet MS012, JEDEC 95 and the current Bourns datasheet. Materials specified for packaging are unchanged except for the parallel qualification of Sumitomo G600 mold compound. Product ratings and electrical characteristics are unaffected by the change. There is no impact on form, fit, function or reliability.

**Qualification Plan:**

Following page.

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

Bourns has no plans to discontinue assembly & test of products at its existing subcontract sites.

**Point of Contact:**

For further information, please contact:

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**Qualification Information as Follows:**

All Products	
Die Technology	Thyristor Overvoltage Protector
Product Name	Per Table (Row 1)
Die Name	Per Table (Row 2)
Die size (mil)	Per Table (Row 3)
Top Metal	Al
Back Metal	AlTiNiAu
Assembly Site	Cirtek, Philippines
Pins/Package	8/SOIC
Mold Compound	Sumitomo G600
Die Attach	Sumitomo CRM1076NS
Bond Wire	Multiple 2 Mil Au
L/F Material	Copper
Marking	Laser
Termination Finish	Matte Sn (Pb Free)

**Qualification Plan:**

					Test Plan		
					Lot 1 61089D TG605TQ 100 x 75	Lot 2 Custom TT380TQ 124 x 92	Lot 3 6NTP2CD TG435TQ 136 x 76
Stress Test	Conditions	Standard	Method	SS/Acc			
Moisture Induced Stress Sensitivity		J-STD-020	-	Level 1	6	6	6
HTRB	150 °C, 1000 h	MIL STD 750	1048	129/1	45	45	45
THB	85 °C / 85 %RH, 1000 h	J-STD-22	A101	129/1	45	45	45
T Cycle	65 / +150 °C, 200 cs	MIL STD 883	2031	129/1	45	45	45
Solderability	8 h Steam	MIL STD 883	2003	32/0	32	32	32
Lead Fatigue	-	MIL STD 883	2004	22/0	8	8	8
Lead Pull	-	MIL STD 883	2004	22/0	8	8	8
Lead Adhesion	-	MIL STD 883	2025	15/0	8	8	8
Dimensions	Datasheet	MIL STD 883	2025	5/0	5	5	5
Flammability	3 mm	UL94-V0			Manufacturers datasheet		
W/Bond Pull Strength	-	MIL STD 883	2011	76/0	76	76	76
Die Shear	-	MIL STD 883	2019	5/0	5	5	5
X-Ray	-	MIL STD 883	2012	5/0	5	5	5

Samples subjected to HTRB, THB and T Cycle are preconditioned according to JESD22-A113 (260C).

**Stress Test Completion Date:**

September 2007

### 8 Pin SOP Part Numbers

R1W065DR-S	TISP1072F3DR-S	TISP4150F3DR-S	TISP7072F3DR-S
R3589DR-S	TISP1082F3DR-S	TISP4180F3DR-S	TISP7082F3DR-S
R3601DR-S	TISP2082F3DR-S	TISP4290F3DR-S	TISP7125F3DR-S
R3602CDR-S	TISP2125F3DR-S	TISP4380F3DR-S	TISP7150F3DR-S
R3602DR-S	TISP2150F3DR-S	TISP61060DR-S	TISP7180F3DR-S
R3604-1DR-S	TISP2180F3DR-S	TISP61089ADR-S	TISP7240F3DR-S
R3604-2DR-S	TISP2240F3DR-S	TISP61089ASDR-S	TISP7260F3DR-S
R3604-3DR-S	TISP2260F3DR-S	TISP61089BDR-S	TISP7290F3DR-S
R3604-4DR-S	TISP2290F3DR-S	TISP61089DR-S	TISP7320F3DR-S
R3620DR-S	TISP2320F3DR-S	TISP61089SDR-S	TISP7350F3DR-S
R3653-3DR-S	TISP2380F3DR-S	TISP61511DR-S	TISP7380F3DR-S
R3653-4DR-S	TISP3072F3DR-S	TISP61521DR-S	TISP8200MDR-S
R3653DR-S	TISP3082F3DR-S	TISP6L7591DR-S	TISP8201MDR-S
R3661DR-S	TISP3125F3DR-S	TISP6NTP2ADR-S	TISP8210MDR-S
R3679DR-S	TISP3150F3DR-S	TISP6NTP2BDR-S	TISP8211MDR-S
R3680DR-S	TISP3180F3DR-S	TISP6NTP2CDR-S	TISP8250DR-S
R7W080DR-S	TISP3290F3DR-S	TISP7015DR-S	TISP83121DR-S
R7W120DR-S	TISP3380F3DR-S	TISP7015L1DR-S	TISPA79R241DR-S
R7W200DR-S	TISP4072F3DR-S	TISP7038DR-S	TISPL758LF3DR-S
R7W270DR-S	TISP4125F3DR-S	TISP7038L1DR-S	