BOURNS®

Product Change Notification

THYRISTOR SURGE PROTECTORS

May, 2008

Bourns Manufacturers Representatives
Corporate Distributor Product Managers
Americas Sales Team
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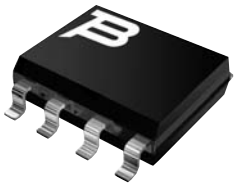

Thyristor Surge Protector Product Change Notification
PCN Tracking Number 46 —
Change from Gold to Copper Wire

Bourns has qualified a change to the base metal composition of the wires used to bond overvoltage protection chips to the package terminals. These interconnect wires are fully encapsulated during manufacture and are internal to the device package outline.

This qualification covers products assembled in 8-pin SOP (150mil) packages (MS012, JEDEC 95) at Cirtek Electronics Corporation, 116 East Main Avenue, Phase V, SEZ Laguna Technopark, Binan, Laguna, Philippines.

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 on page 4 of this document.

Reason for the Change:
Copper wire is now a technically viable alternative to gold wire after several years' development of the wirebond process by mainstream bonder suppliers. There are advantages arising from improved electrical conductivity of the wire and removing the effects of gold price volatility on product pricing.

Product Labeling:
Product marking is unchanged.

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 August 2008. Deliveries to customers may occur from September 2008 onwards.

First Date Code with Copper Wire:
0834

Impact on Form, Fit, Function and Reliability:
The package outline dimensions will continue to meet MS012, JEDEC 95 and the current Bourns datasheet. Datasheet product ratings and electrical characteristics are unaffected by the change. There is no impact on form, fit, function or reliability.

Qualification Plan/Results:
Following page.

Last Date of Manufacture of Existing Product:
Product phase to copper wire may extend over a period of 3-9 months from September 2008. At present, other qualified assembly/tests sites for 8-SOIC will continue to use gold wire.

Point of 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	AlNiAu or AlTiNiAu
Assembly Site	Cirtek, Philippines
Pins/Package	8/SOIC
Mold Compound	Sumitomo G600
Die Attach	Sumitomo CRM1076NS
Bond Wire	Multiple 2 Mil Copper
L/F Material	Copper
Marking	Laser
Termination Finish	Matte Sn (Pb Free)

Qualification Results:

					Test Plan		
					Lot 1 61089D TG605TQ	Lot 2 Custom TT380TQ	Lot 3 6NTP2CD TG435TQ
Stress Test	**Conditions**	**Standard**	**Method**	**SS/Acc**	100 x 75	124 x 92	136 x 76
HTRB	150 ℃,1000 h	MIL STD 750	1048	129/1	45/0	45/0	45/0
THB	85 ℃/85 %RH, 1000 h	J-STD-22	A101	129/1	45/0	45/0	45/0
T Cycle	65/+150 ℃, 200 cs	MIL STD 883	2031	129/1	45/0	45/0	45/0
Wire Pull Strength	>40 g	MIL STD 883	2011	76/0	20/0	20/0	20/0
Wire Shear Strength	>40 g	Sample split between Pull and Shear Testing			20/0	20/0	20/0

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

Stress Test Completion Date:
May, 2008

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	TISP61089BDR-T	TISP7350F3DR-S
R3653-3DR-S	TISP2380F3DR-S	TISP61089SDR-S	TISP7380F3DR-S
R3653-4DR-S	TISP3072F3DR-S	TISP61511DR-S	TISP8200MDR-S
R3653DR-S	TISP3082F3DR-S	TISP61521DR-S	TISP8201MDR-S
R3661DR-S	TISP3125F3DR-S	TISP6L7591DR-S	TISP8210MDR-S
R3679DR-S	TISP3150F3DR-S	TISP6NTP2ADR-S	TISP8211MDR-S
R3680DR-S	TISP3180F3DR-S	TISP6NTP2BDR-S	TISP8250DR-S
R7W080DR-S	TISP3290F3DR-S	TISP6NTP2CDR-S	TISP83121DR-S
R7W120DR-S	TISP3380F3DR-S	TISP7015DR-S	TISPA79R241DR-S
R7W200DR-S	TISP4072F3DR-S	TISP7015L1DR-S	TISPL758LF3DR-S
R7W270DR-S	TISP4125F3DR-S	TISP7038DR-S	
		TISP7038L1DR-S	