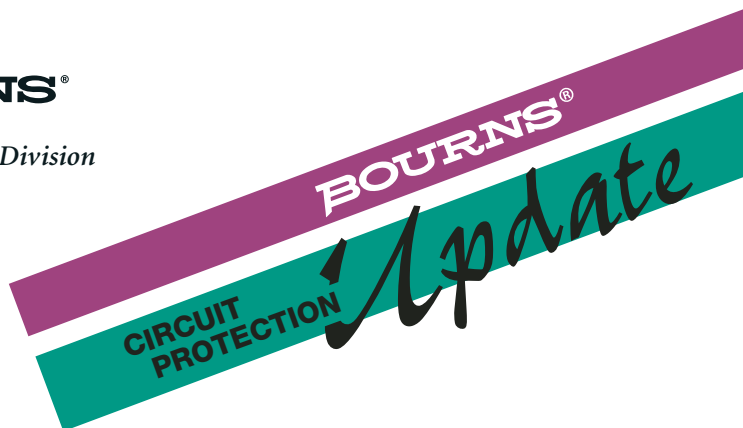


October, 2005



Circuit Protection Division

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 39 - Mold Compound Change - T0-92 & D0-92 Packages

This change notification covers a change to the epoxy mold compound used for encapsulation of TO-92 and DO-92 products assembled by PSI Technologies Inc, Manila, Philippines.

The change is:

from **Plaskon 7060**, manufactured by Cookson Electronics
to **ST-7100-GX**, manufactured by Cheil Industries Inc, 332-2 Gochun-Dong,
Euiwang-Shi, Kyoungki, Korea.

Products Affected by the Change:

All products assembled in TO-92 and DO-92 packages are affected. These include catalogue overvoltage protectors, power transistors and thyristors and customer specific products.

Existing Part No.	Package	Lead Free Product Part Number
TISP® Products		
TISP4xxxF3LM	DO-92	TISP4xxxF3LM-S
TISP4xxxF3LMR	DO-92	TISP4xxxF3LMR-S
TISP4xxxF3LMFR	DO-92	TISP4xxxF3LMFRS
TISP4xxxLP	TO-92	TISP4xxxLP-S
TISP4xxxLPR	TO-92	TISP4xxxLPR-S
TISP4xxxF3LP	TO-92	TISP4xxxF3LP-S
TISP4xxxF3LPR	TO-92	TISP4xxxF3LPR-S
TISP4xxxM3LM	DO-92	TISP4xxxM3LM-S
TISP4xxxM3LMR	DO-92	TISP4xxxM3LMR-S
TISP4xxxM3LMFR	DO-92	TISP4xxxM3LMFRS
TISP4xxxH3LM	DO-92	TISP4xxxH3LM-S
TISP4xxxH3LMR	DO-92	TISP4xxxH3LMR-S
TISP4xxxH3LMFR	DO-92	TISP4xxxH3LMFRS
Customer Specific		
R3752-1	TO-92	R3752-1-S
R3752-3	TO-92	R3752-3-S
Transistors		
TIPPxx	TO-92	TIPPxx-S
TIPPxxx	TO-92	TIPPxxx-S
Thyristors		
TICP1xx	TO-92	TICP1xx-S
TICP2xx	TO-92	TICP2xx-S

Reason for the Change:

Continuous quality and technology improvement.

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 February 2006.

Commencing Date Code:

608

Impact on Form, Fit, Function and Reliability:

There is no impact. ST-7100-Gx is recognized by UL and listed in E115797. The flammability rating is V-O.

Qualification Plan:

Following page.

Last Date of Manufacture of Unchanged Product:

February 2006.

Qualification Information as Follows:

Die Technology	As Results Table (Row 1)
Die Name	As Results Table (Row 2)
Die size (mil)	As Results Table (Row 3)
Top Metal	Al
Back Metal	AlTiNiAu
Assembly Site	PSI, Technologies, Manila, Philippines
Pins/Package	2/DO-92 & 3/TO-92
Mold Compound	ST-7100-GX
Die Attach	Ablebond 84-1 LMI/SR4
Wire Bond	2 mil Au, Thermosonic
L/F Material	Copper
Marking	Laser
Termination Finish	Matte Sn or PbSn

Qualification Tests:

Stress Test/Conditions	QSS (1)	Standard	Method	SS/Accept
HTRB, 1000 h, conditions as results table	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, 200 cs	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
X-Ray Wire	009-128	MIL STD 883	2012	5/0

Notes:

1. QSS Specifications are Bourns Internal Qualification Standards.

Qualification Results:

	Die Technology	Thyristor	Transistor	OVP
	Product Name	TICP106M-S	TIPP116-S	TISP4350H3LM-S
	Chip Type	LT401LQ	TA208LQ	TA230LQ
	Chip Size	56 x 56	65 x 65	65 x 65
	Package	TO-92	TO-92	DO-92
HTRB	Conditions	110 °C, 480V	150 °C, 64V	150 °C, 100 V
	Result	45/0	45/0	45/0
85 °C/85 % RH		45/0	45/0	45/0
Temperature Cycle		45/0	45/0	45/0
Solder Heat		22/0	22/0	22/0
Lead Pull		12/0	12/0	12/0
X-Ray Wire		5/0	5/0	5/0

Stress Test Completion Date:

August 2005