

Product Change Notice

Issue Date: 16 May 2005

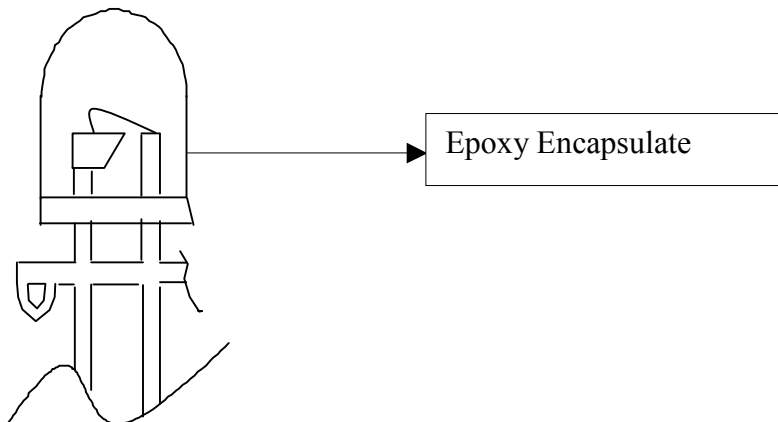
1. Change Type:

To add an alternate source for epoxy encapsulate

2. Parts Affected:

HLMA-EH22-XXXXX	HLMP-EJ10-XXXXX	HLMP-GG30-XXXXX	QLMP-ED73-XXXXX	QLMP-EJ49-XXXXX
HLMA-EL22-XXXXX	HLMP-EJ15-XXXXX	HLMP-GH08-XXXXX	QLMP-ED79-XXXXX	QLMP-EJ98-XXXXX
HLMP-DL50-XXXXX	HLMP-EJ17-XXXXX	HLMP-GL15-XXXXX	QLMP-ED83-XXXXX	QLMP-EJ99-XXXXX
HLMP-DL51-XXXXX	HLMP-EJ24-XXXXX	HLMP-GL32-XXXXX	QLMP-ED84-XXXXX	QLMP-EL14-XXXXX
HLMP-ED18-XXXXX	HLMP-EJ30-XXXXX	QLMA-DG96-XXXXX	QLMP-ED85-XXXXX	QLMP-EL19-XXXXX
HLMP-ED27-XXXXX	HLMP-EJ32-XXXXX	QLMA-DG99-XXXXX	QLMP-ED86-XXXXX	QLMP-EL29-XXXXX
HLMP-ED50-XXXXX	HLMP-EL16-XXXXX	QLMA-DH97-XXXXX	QLMP-ED87-XXXXX	QLMP-EL36-XXXXX
HLMP-ED81-XXXXX	HLMP-EL17-XXXXX	QLMA-DJ99-XXXXX	QLMP-ED89-XXXXX	QLMP-EL41-XXXXX
HLMP-ED82-XXXXX	HLMP-EL18-XXXXX	QLMA-DL83-XXXXX	QLMP-ED92-XXXXX	QLMP-EL42-XXXXX
HLMP-EG17-XXXXX	HLMP-EL24-XXXXX	QLMA-DL84-XXXXX	QLMP-ED95-XXXXX	QLMP-EL43-XXXXX
HLMP-EG26-XXXXX	HLMP-EL26-XXXXX	QLMA-DL86-XXXXX	QLMP-ED96-XXXXX	QLMP-EL51-XXXXX
HLMP-EH10-XXXXX	HLMP-EL27-XXXXX	QLMA-DL89-XXXXX	QLMP-ED97-XXXXX	QLMP-EL73-XXXXX
HLMP-EH15-XXXXX	HLMP-EL32-XXXXX	QLMA-DL90-XXXXX	QLMP-ED98-XXXXX	QLMP-EL75-XXXXX
HLMP-EH17-XXXXX	HLMP-EL33-XXXXX	QLMA-DL91-XXXXX	QLMP-ED99-XXXXX	QLMP-EL79-XXXXX
HLMP-EH24-XXXXX	HLMP-FD05-XXXXX	QLMP-DD99-XXXXX	QLMP-EG96-XXXXX	QLMP-EL91-XXXXX
HLMP-EH25-XXXXX	HLMP-FH00-XXXXX	QLMP-ED19-XXXXX	QLMP-EG97-XXXXX	QLMP-EL92-XXXXX
HLMP-EH26-XXXXX	HLMP-FH05-XXXXX	QLMP-ED44-XXXXX	QLMP-EH19-XXXXX	QLMP-EL95-XXXXX
HLMP-EH27-XXXXX	HLMP-FL00-XXXXX	QLMP-ED45-XXXXX	QLMP-EH29-XXXXX	QLMP-EL96-XXXXX
HLMP-EH30-XXXXX	HLMP-FL05-XXXXX	QLMP-ED46-XXXXX	QLMP-EH41-XXXXX	QLMP-EL98-XXXXX
HLMP-EH32-XXXXX	HLMP-GG10-XXXXX	QLMP-ED49-XXXXX	QLMP-EH49-XXXXX	QLMP-EL99-XXXXX
HLMP-EH33-XXXXX	HLMP-GG15-XXXXX	QLMP-ED56-XXXXX	QLMP-EH51-XXXXX	QLMT-DH89-XXXXX

3. Description and Extent of Change:



To add an alternate source for the epoxy encapsulate illustrated in the above figure.

4.Reasons for Change:

To ensure a continued supply of epoxy encapsulate

5.Effect of Change on Fit, Form, Function, Quality, or Reliability:

Qualification and characterization has been done for this alternate epoxy encapsulate. The characterization result indicates that the alternate epoxy encapsulate has comparable performance in optical and thermal characteristics. Therefore there is no major change in fit, form and function.(Reliability data is shown in paragraph 7)

6. Effective Date of Change:

The shipment for this Through Holes Lamps may be a mixture of new and old part from WW37'05 (Sept 2005) onward

7. Qualification Data:

The table shown below is the new encapsulate epoxy qualification data.

Test Items	Passing Criteria	Results
TMCL (1SH & 1TTW-TMCL, -40/120°C, 30 5 30 min)	No Open, short, dim and functional failure up to 100X	Passed
Thermal Shock (-40/110°C, 20 0 20 min)		Passed
HTOL 1 (55°C, If=50mA)	1. No open, intermittent open, short 2. Iv degradation; Avg <35%, Max < 50% 3. Vf/Vr shift <10%	Passed
HTOL 2 (100°C, If=20mA)		Passed
HTSL (125°C)		Passed
LTOL (-40 °C, If= 50mA)		Passed
LTSL (-40°C)		Passed
WHTOL (85°C/85%RH, If=20mA)		Passed
WHTRB (85°C/85%RH, V=5VRB)		Passed
WHTSL (85°C/85%RH)		Passed
Lead Fatigue	Visual check: no package crack & loose lead No open, short and functional failure	Passed
Mechanical Shock		Passed
Free Drop Test		Passed
Resistance to Solvents	No functional failure	Passed
UV Test	No Discoloration/Cosmetic damage	Passed
Solder Heat Resistance	No open, short, dim and functional failure	Passed

These changes have been reviewed and approved by Agilent Technologies engineers and managers per Agilent Technologies procedure: Change Control and Customer Notification, A-5962-6052-80.

Please contact your Agilent field sales engineer or Contact Center (<http://www.agilent.com/view/contactus>) for any questions or support requirements. Please return any response as soon as possible, but not to exceed 30 days.