



PRODUCT/PROCESS CHANGE NOTIFICATION
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15-AUG-2001

SUBJECT: ON Semiconductor Product/Process Change Notification #11499

TITLE: Final Notification for Qualfication of Liteon Seefull Assembly/Test Site for Axial Leaded Product

EFFECTIVE DATE: 14-Oct-2001

AFFECTED CHANGE CATEGORY: Subcontractor Assembly / Test / Fab Site

AFFECTED PRODUCT DIVISION: Bipolar Discretes Products Div

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Laura Rivers <S20636@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office or Barbara Matteson <RM2230@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Office or Eileen Kim <RP0506@onsemi.com>

DISCLAIMER:

Initial Product/Process Change Notification (IPCN) -First Notification distributed to customers. Distributed at least 120 days from the effective date of the change.

Final Product/Process Change Notification (FPCN) -Final Notification completing the notification process. Distributed at least 60 days from the effective date of the change. ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact your local ON Semiconductor Sales Office.

DESCRIPTION AND PURPOSE:

ON Semiconductor is qualifying LiteOn's Seefull facility as an additional assembly/test site for our axial leaded rectifier, Zener/TVS, and thyristor product. This additional site will allow ON Semiconductor to continue to meet the high demand for our axial leaded product. The LiteOn Seefull facility has been an ON Semiconductor qualified subcontractor since 1999. The two companies have a strong working relationship and past programs have proven very successful.



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QUALIFICATION PLAN:

Qualification vehicle justification:

Technology	Package	Qual Vehicle	Lots Required	Voltage	Justification
Bi-dir TVS	Mosorb	1.5KE250CA	1 lot + 1 control	250	Largest die, highest voltage
Bi-dir TVS	Mosorb	1.5KE75CA	1 lot + 1 control	75	Mid voltage, largest die
Bi-dir TVS	Mosorb	1.5KE33CA	1 lot + 1 control	33	Low voltage, largest die
Bi-dir TVS	Mini-Mosorb	SA85CA	Characterization Only	85	Mid voltage, mid die
Bi-dir TVS	Sur-40	P6KE200CA	Characterization Only	200	2nd largest die, highest voltage
Uni-dir TVS	Mosorb	1.5KE250A	2 lots + 1 control	250	Largest die, highest voltage
Uni-dir TVS	Mini-Mosorb	SA170A	3 lots + 1 control	170	2nd largest die, highest voltage
Uni-dir TVS	Sur-40	P6KE200A	3 lots + 1 control	200	Highest voltage, mid die
Zener	Sur-30	1N5913B	2 lots + 1 control	3.3	Lowest voltage, alloy process
Zener	Sur-30	1N5956B	1 lot + 1 control	200	Highest voltage, smallest die
Schottky	1 Amp	MBR160	3 lots + 1 control	60	Smallest die, mid voltage
Schottky	3 Amp	MBR3100	3 lots + 1 control	100	Largest die in the package
Ultrafast	1 Amp	MUR1100E	3 lots + 1 control	1000	Largest die, highest voltage
Ultrafast	3 Amp	MUR4100E	3 lots + 1 control	1000	Largest die, highest voltage
Thyristor	1 Amp	MKP1V240	3 lots + 1 control	240	Largest die, highest voltage
Thyristor	3 Amp	MKP3B240	3 lots + 1 control	240	Largest die, highest voltage

RELIABILITY DATA SUMMARY:

Reliability data for Rectifier and Zener

Part Number	Auto clave 96hrs	HTRB 504 hrs	H3TRB 504 hrs	T/C 500 cyc	IOL 7500 cyc	Parame tric Verifi cation	Resist ance to Solvents	Resist ance to Solder Heat	Soldera bility
MBR3100	0/240	0/240	0/240	0/240	0/240	0/90	0/90	0/90	0/30
MUR4100E	0/240	0/240	0/240	0/240	0/240	0/90	0/90	0/90	0/30
MBR160	0/240	0/240	0/240	0/240	0/240	0/90	0/90	0/90	0/30
MUR1100E	0/240	0/240	0/240	0/240	0/240	0/90	0/90	0/90	0/30
1.5KE33CA	0/240	0/240	0/240	0/240	0/240	0/90	0/90	0/90	0/30



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Part Number	Auto clave 96hrs	HTRB 504 hrs	H3TRB 504 hrs	T/C 500 cyc	IOL 7500 cyc	Parame tric Verifi cation	Resist ance to Solvents	Resist ance to Solder Heat	Soldera bility
1.5KE 75CA	0/240	0/240	0/240	0/240	0/240	0/90	0/90	0/90	0/30
1.5KE2 50CA	0/240	0/240	0/240	0/240	0/240	0/90	0/90	0/90	0/30
1.5KE 250A	0/240	0/240	0/240	0/240	0/240	0/90	0/90	0/90	0/30
SA170A	0/240	0/240	0/240	0/240	0/240	0/90	0/90	0/90	0/30
1N 5913B	0/240	0/240	0/240	0/240	0/240	0/90	0/90	0/90	0/30
1N 5956b	0/240	0/240	0/240	0/240	0/240	0/90	0/90	0/90	0/30
P6KE2 00A	0/240	0/240	0/240	0/240	0/240	0/90	0/90	0/90	0/30

Reliability data for Sidac

Part Number	Autoclave 96hrs	H3TRB 504hrs	T/C 500cyc	Resistance to Solder Heat	Solderability
MKP3V240	0/240	0/240	0/240	0/30	0/30
MKP1V130	0/239	0/240	0/240	0/30	0/30

Reliability Testing Conclusions:

Test results meet all quality and reliability requirements.

ELECTRICAL CHARACTERISTIC SUMMARY:

The devices' electrical characteristics will not change significantly and the reliability will continue to meet ON Semiconductor's high quality standards.

CHANGED PART IDENTIFICATION:

Shipment of devices built at the Seefull facility will begin 28/OCT/01 and will be phased in over time. Identification of material built in the Seefull facility is possible by the site code "PK" marked on the part.

ADDITIONAL INFORMATION:

PHYSICAL DIMENSIONS

Case Outline

CASE OUTLINE	A(LEAD DIA.)		B(LEAD LENGTH)		C(BODY DIA.)		D(BODY LENGTH)	
	Min	Max	Min	Max	Min	Max	Min	Max
Current MOSORB	0.970	1.070	25.40		4.830	5.210	9.140	9.520
New DO-201	0.960	1.060	25.40		4.800	5.300	8.500	9.500
Current 59-04 & MINI- MOSORB	0.760	0.860	27.94		2.79	3.05	5.97	6.60
New DO-15	0.710	0.860	25.40		2.00	2.70	4.10	5.20
Current 267-03	1.220	1.320	25.40		4.830	5.330	9.400	9.650
New DO-201AD	1.200	1.300	25.40		4.800	5.300	7.300	9.500

Note : All units are in mm.

Bidirectional Zener devices will standardize on Liteon die.



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AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART

1.5KE100A, 1.5KE100ARL4, 1.5KE100CARL4, 1.5KE10A, 1.5KE10ARL4, 1.5KE10CA,
 1.5KE10CARL4, 1.5KE110A, 1.5KE110ARL4, 1.5KE110CA, 1.5KE11A, 1.5KE11ARL4,
 1.5KE11CA, 1.5KE11CARL4, 1.5KE120A, 1.5KE120ARL4, 1.5KE120CA, 1.5KE120CARL4,
 1.5KE12A, 1.5KE12ARL4, 1.5KE12CA, 1.5KE12CARL4, 1.5KE130A, 1.5KE130ARL4,
 1.5KE130CA, 1.5KE130CARL4, 1.5KE13A, 1.5KE13ARL4, 1.5KE13CA, 1.5KE13CARL4,
 1.5KE150A, 1.5KE150ARL4, 1.5KE150CA, 1.5KE150CARL4, 1.5KE15A, 1.5KE15ARL4,
 1.5KE15CA, 1.5KE15CARL4, 1.5KE160A, 1.5KE160ARL4, 1.5KE16A, 1.5KE16ARL4,
 1.5KE16CA, 1.5KE16CARL4, 1.5KE170A, 1.5KE170ARL4, 1.5KE170CA, 1.5KE180A,
 1.5KE180ARL4, 1.5KE180CARL4, 1.5KE18A, 1.5KE18ARL4, 1.5KE18CA, 1.5KE18CARL4,
 1.5KE200A, 1.5KE200ARL4, 1.5KE200CA, 1.5KE200CARL4, 1.5KE20A, 1.5KE20ARL4,
 1.5KE20CA, 1.5KE20CARL4, 1.5KE220A, 1.5KE220ARL4, 1.5KE220CA, 1.5KE220CARL4,
 1.5KE22A, 1.5KE22ARL4, 1.5KE22CA, 1.5KE22CARL4, 1.5KE24A, 1.5KE24ARL4,
 1.5KE24CA, 1.5KE24CARL4, 1.5KE250A, 1.5KE250ARL4, 1.5KE250CA, 1.5KE250CARL4,
 1.5KE27A, 1.5KE27ARL4, 1.5KE27CA, 1.5KE27CARL4, 1.5KE30A, 1.5KE30ARL4, 1.5KE30CA,
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SA17ARL, SA18A, SA18ARL, SA18CA, SA18CARL, SA20A, SA20ARL, SA20CA, SA20CARL,
SA24A, SA24ARL, SA24CA, SA24CARL, SA24CATA, SA26A, SA26ARL, SA28A, SA28ARL,
SA28CA, SA30A, SA30ARL, SA30CA, SA33A, SA33ARL, SA33CARL, SA36A, SA36ARL,
SA36CA, SA40A, SA40ARL, SA43A, SA43CA, SA43CARL, SA45ARL, SA45CARL, SA48A,
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