



Expertise Applied | Answers Delivered

May 16<sup>th</sup>, 2017

RE: LFPCN41260

To: Our Valued Customers.

From: Littelfuse Product Management Team

Subject: SIDACtor® Devices Sawing grid Optimization

Similar to LFPCN41228 which issued two years ago for die grid optimization only for B and C-rated SIDACtor® Devices on DO-214AA Package

Littelfuse would like to notify you of another PCN- LFPCN41260 for die grid design optimization only for the rest SIDACtor® Devices in various Packages. there are NO changes in active area of silicon, therefore the actual electrical performance stays identical to existing design,

Please refer to 3<sup>rd</sup> page for qualification report and refer to separate attachment for the affected Part number List

There are no changes to fit, form, function and shape of the finished product and electrical parameter.

Form, Fit, Function and shape Changes: None

Part Number Changes: None

Effective Date: Aug, 16<sup>th</sup>, 2017

Migration period: Aug 16<sup>th</sup> 2017 to Dec 31<sup>st</sup> 2017

Replacement Products: N/A

Last Time Buy: N/A

If you have any other question or concerns, please contact Littelfuse® local sales representative, or Meng Wang, Product Manager for further assistance.

We highly value your business and look forward to assisting you whenever possible.

Best Regards,

Meng Wang

Product Manager

Littelfuse SIDACtor®

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## Product/Process Change Notice (PCN)

**PCN#:** LFPCN41260 **Date:** Aug 16<sup>th</sup> 2017

**Product Identification:**

SIDACTor®

**Implementation Date for Change:**

Aug 16<sup>th</sup> 2017

### Contact Information

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**Title:** Product Manager

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### Category of Change:

- Assembly Process
- Data Sheet
- Technology
- Discontinuance/Obsolescence
- Equipment
- Manufacturing Site
- Raw Material
- Testing
- Fabrication Process
- Other: \_\_\_\_\_

### Description of Change:

Littelfuse would like to notify you of die grid design optimization , the grid is for wafer sawing , with expertise gained and process improvement , we would like to optimize this grid for better sawing , since Aug 12<sup>th</sup> 2017, this change will be implemented, from this date onwards , you will receive the goods either with previous grid or optimized grid till the old inventory is depleted .

### Important Dates:

- Qualification Samples Available: May 16<sup>th</sup> 2017  Last Time Buy: N/A
- Final Qualification Data Available: May 16<sup>th</sup> 2017
- Date of Final Product Shipment: N/A

### Method of Distinguishing Changed Product

- Product Mark, N/A
- Date Code, 7Hxxx
- Other,

### Demonstrated or Anticipated Impact on Form, Fit, Function or Reliability:

N/A

### LF Qualification Plan/Results:

available , see attached next page

**Customer Acknowledgement of Receipt:** Littelfuse requests you acknowledge receipt of this PCN. In your acknowledgement, you can grant approval or request additional information. Littelfuse will assume the change is acceptable if no acknowledgement is received within 30 days of this notice. Lack of any additional response within 90 days of PCN issuance further constitutes acceptance of the change.

Littelfuse, WX  
 East 1# Zhen Fa 6 Road  
 Shuo Fang Industrial Park  
 Wuxi, Jiangsu 214142

## Product Qualification Report

To: Those who may concern  
 From: Zihui Chen, Product Engineer, Littelfuse,  
 Date: May 9<sup>th</sup>, 2017  
 Subject: SIDACTor die grid optimization qualification

### Purpose:

This report is to inform the successful qualification test results associated with all SIDACTor die shrink grid product

### 1. Qualification Types ( Test Vehicle)

Product Series	Representative Test Sample Part Numbers	Package	Assembly Location
SIDACTor	P0300S1ALRP	DO-214AC	Wuxi
	P833P0080S1BLRP		
	P6002SBLRP	DO-214AA	
	P4202SCLRP		
	PLED13SW		
	P1300SDLRP		
	P3500SDLRP		
	P1101SDLRP		
	P3100Q12BLRP	Q3X3	Outsource
	P0080Q22CLRP	Q3.3X3.3	
	P0084UALRP	MS-013	
	P1602ACLRP	A-PACK	

### 2. Qualification Test Items and Result Summary:

Test Category	Description	Sample P/N	Sample Qty	Littelfuse test Ref#	Contents/Conditions	Result summary
Parametric	Electrical Parameters	P0300S1ALRP	50	88094	VBO, Vdrn, IH, VT	Meet datasheet spec
		P833P0080S1BLRP	50	87487		
		P6002SBLRP	50	87810		
		P4202SCLRP	50	87811		
		PLED13SW	50	90365		
		P1300SDLRP	50	90334		
		P3500SDLRP	50	90336		
		P1101SDLRP	50	90505		

		P3100Q12BLRP	50	91399		
		P0080Q22CLRP	50	91399		
		P0084UALRP	50	92727		
		P1602ACLRP	50	92729		
Surge out	Surge out 8*20us	P0300S1ALRP	10	88094	'+/- hit,from rated lpp,0.1lpp step	Meet datasheet spec
		P833P0080S1BLRP	10	87487		
		P6002SBLRP	10	87810		
		P4202SCLRP	10	87811		
		P1300SDLRP	10	90334		
		P3500SDLRP	10	90336		
		P1101SDLRP	10	90505		
		P3100Q12BLRP	10	91399		
		P0080Q22CLRP	10	91399		
		P0084UALRP	10	92727		
		P1602ACLRP	10	92729		
	Surge out 10*700us	P0300S1ALRP	10	88094	'+/- hit,from rated lpp,0.1lpp step	
		P833P0080S1BLRP	10	87487		
		P6002SBLRP	10	87810		
		P4202SCLRP	10	87811		
		P1300SDLRP	10	90334		
		P3500SDLRP	10	90336		
		P1101SDLRP	10	90505		
		P3100Q12BLRP	10	91399		
		P0080Q22CLRP	10	91399		
		P0084UALRP	10	92727		
P1602ACLRP	10	92729				
		P0300S1ALRP	10	88094		
		P833P0080S1BLRP	10	87487		
		P6002SBLRP	10	87810		
		P4202SCLRP	10	94943		
		P1300SDLRP	10	90334		
Surge out 10*1000us		P3500SDLRP	10	90336	'+/- hit,from rated lpp,0.1lpp step	
		P1101SDLRP	10	90505		
		P3100Q12BLRP	10	91399		
		P0080Q22CLRP	10	91399		
		P0084UALRP	10	92727		
		P1602ACLRP	10	92729		
VS	VS	P0300S1ALRP	10	88094	100V/us	Meet datasheet spec
		P833P0080S1BLRP	10	87487		
		P6002SBLRP	10	87810		
		P4202SCLRP	10	87811		
		P1300SDLRP	10	90334		
		P3500SDLRP	10	90336		
		P1101SDLRP	10	90505		
		P3100Q12BLRP	10	91399		
		P0080Q22CLRP	10	91399		
		P0084UALRP	10	92727		
P1602ACLRP	10	92729				
Reliability	DC/AC Blocking (HTRB)	P0300S1ALRP	77	88093	125°C,24h at +/- 80%Vdrm,AC	0 failure at 1008h
		P833P0080S1BLRP	77	87484		

		P6002SBLRP	77	90243	blocking test with AC peak 80% Vdrm 168/504/1008h	
		P4202SCLRP	77	90243		
		PLED13SW	77	90364		
		P1300SDLRP	77	90332		
		P3500SDLRP	77	90335		
		P1101SDLRP	77	90504		
		P3100Q12BLRP	77	91398		
		P0080Q22CLRP	77	91398		
		P0084UALRP	77	92726		
		P1602ACLRP	77	92728		
	Temperature Cycling (TC)	P0300S1ALRP	40	88093	-55°C ~+150°C, H851000cycles	0 failure at 1000Cycles
		P833P0080S1BLRP	40	87484		
		P6002SBLRP	40	90243		
		P4202SCLRP	40	90243		
		PLED13SW	40	90364		
		P1300SDLRP	40	90332		
		P3500SDLRP	40	90335		
		P1101SDLRP	40	90504		
		P3100Q12BLRP	40	91398		
		P0080Q22CLRP	40	91398		
		P0084UALRP	40	92726		
		P1602ACLRP	40	92728		
		P0300S1ALRP	40	88093		
		P833P0080S1BLRP	40	87484		
		P6002SBLRP	40	90243		
	H3TRB	P4202SCLRP	40	90243	168/504/1008h at Tj=85C/85% RH with device reverse biased at 80% VDRM and not exceed 52V	0 failure at 1008hrs
		PLED13SW	40	90364		
		P1300SDLRP	40	90332		
		P3500SDLRP	40	90335		
		P1101SDLRP	40	90504		
		P3100Q12BLRP	40	91398		
		P0080Q22CLRP	40	91398		
		P0084UALRP	40	92726		
		P1602ACLRP	40	92728		

### 3. MTBF Calculation

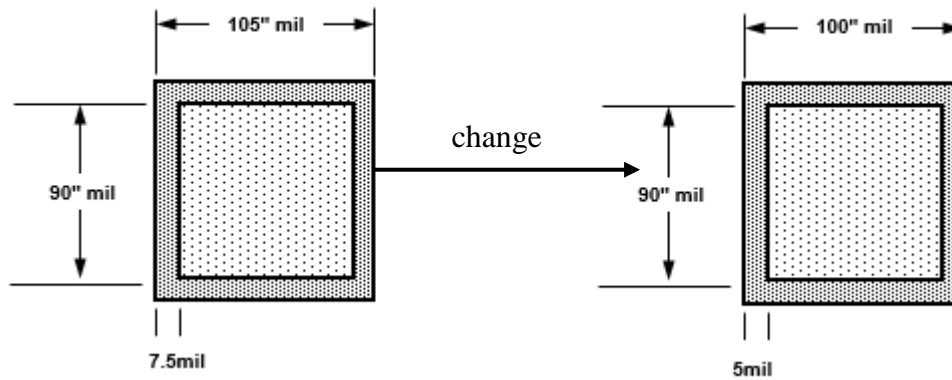
Estimate of Failure Rate, MTBF, FITS for a Given Operation Temperature (**See note**)

Temp °C	% FR/khrs	MTBF (K)	FITS
30	0.00004251	2352588	0.42
60	0.00133448	74918	13.34
80	0.00959617	10420	95.96
100	0.05584068	1790	558.4
125	0.39351454	254	3935.1

Note: The **Mean-Time-Between-Failure (MTBF)** in hours and the percent failure rate per 1000 hours (%FR/khr) are computed at a 60% confidence level using the chi square method and the Arrhenius derating model for various junction operating temperatures. For the calculations, a value of 1 eV was used for the activation energy.

#### 4. FAB Process & Material Differences/Changes:

There is grid size change from 7.5mil/side to 5mil/side in FAB process method



#### 5. Assembly Process & Material Differences/Changes:

There are no significant changes in the assembly and process method.

#### 6. Conclusion

According to the above qualification test results, Littelfuse concluded that SIDACTor product series passed the all Reliability Test at WTC Lab.

**AFFECTED MPN**

P0080S1ALRP  
P0080S1BLRP  
P833P0080S1BLRP  
P0220S1ALRP  
P0220S1BLRP  
P0300S1ALRP  
P0300S1BLRP  
P863P0300S1BLRP  
P0640S1ALRP  
P0640S1BLRP  
P1800S1ALRP  
P1800S1BLRP  
P2300S1ALRP  
P2300S1BLRP  
P2600S1ALRP  
P2600S1BLRP  
P3100S1ALRP  
P3100S1BLRP  
P3500S1ALRP  
P3500S1BLRP  
P0641SALRP  
P0721SALRP  
P506P0721SALRP  
P0901SALRP  
P1101SALRP  
P1301SALRP  
P1701SALRP  
PLED6SW  
PLED9SW  
PLED13SW  
PLED18SW  
PLED6USW  
PL865PLED18USW  
P0080SAMCLRP-  
PLED6S  
PLED6US  
PLED9S  
PLED13S  
PLED18S  
P0240SBLRP  
P658P0300SARP  
PLED9US  
P871PLED9US  
PLED13US  
PLED18US  
P0181SALRP

**AFFECTED MPN**

PLED35US  
PLED6USW2A  
P1101SCLRP-N  
P825P3500SCMCLRP  
PLED6USW3A  
PLED9USW3A  
P0080SDLRP  
P835P0080SDLRP  
P0640SDLRP  
P812P0640SDLRP  
P0720SDLRP  
P813P0720SDLRP  
P767P0720SDLRP  
P767AP0720SDLRP  
P0900SDLRP  
P923CRP  
P1100SDLRP  
P698CRP  
P806P1100SDLRP  
P1300SDLRP  
P810P1300SDLRP  
P925CRP  
P1500SDLRP  
P376P1500SCR  
P674P1500SCR  
P768P1500SDLRP  
P768AP1500SDLRP  
P926CRP  
P927CRP  
P931CRP  
P1800SDLRP  
P2300SDLRP  
P2600SDLRP  
P746P2600SDRP  
P746AP2600SDRP  
P3100SDLRP  
P3100SCHRP  
P765P3100SDLRP  
P765AP3100SDLRP  
P3500SDLRP  
P692P3500SDRP  
P773P3500SDLRP  
PP1100SD-LF-T  
P0641SCLRP  
P0721SCLRP  
P0901SCLRP



**AFFECTED MPN**

P1100SCLRP  
P1101SCLRP  
P1201SCLRP  
P856P1201SCLRP  
P1301SCLRP  
P1500SCLRP  
P465P1500SCR  
P1701SCLRP  
P0641SDLRP  
P0901SDLRP  
P1101SDLRP  
P829P1101SDLRP  
P829AP1101SDLRP  
P1301SDLRP  
P1701SDLRP  
P2601SDLRP  
P3101SDLRP  
A0609SCLRP  
P760LRP  
P760ALRP  
A0710SCLRP  
A0709SCLRP  
PP0640SC-LF-T  
PP0720SC-LF-T  
PP0900SC-LF-T  
PP1100SC-LF-T  
PP1300SC-LF-T  
P0642SALRP  
P0722SALRP  
P0902SALRP  
P1102SALRP  
P1302SALRP  
P1502SALRP  
P1802SALRP  
P2302SALRP  
P2602SALRP  
P3002SALRP  
P3502SALRP  
P4202SALRP  
P4802SALRP  
P6002SALRP  
P6002SALRP-HM  
P7002SALRP  
P0642SBLRP  
P0722SBLRP  
P0902SBLRP

**AFFECTED MPN**

P1102SBLRP  
P1302SBLRP  
P1502SBLRP  
P1802SBLRP  
P2302SBLRP  
P2602SBLRP  
P3002SBLRP  
P3502SBLRP  
P4202SBLRP  
P4802SBLRP  
P6002SBLRP  
P7002SBLRP  
P3002SCLRP  
P3502SCLRP  
P4202SCLRP  
P772P4202SCLRP  
P797P4202SCLRP  
P798P4202SCLRP  
P4802SCLRP  
P6002SCLRP  
P0080EAL  
P0080EALAP  
P0080EALRP1  
P0080EALRP2  
P0080EAMCL  
P0080EAMCLAP  
P0080EAMCLRP1  
P0080EAMCLRP2  
P0080EBL  
P0080EBLAP  
P0080EBLRP1  
P0080EBLRP2  
P0080EBMCL  
P0080EBMCLAP  
P0080EBMCLRP1  
P0080EBMCLRP2  
P0300EAL  
P0300EALAP  
P0300EALRP1  
P0300EALRP2  
P0300EAMCL  
P0300EAMCLAP  
P0300EAMCLRP1  
P0300EAMCLRP2  
P0300EBL  
P0300EBLAP

**AFFECTED MPN**

P0300EBLRP1  
P0300EBLRP2  
P0300EBMCL  
P0300EBMCLAP  
P0300EBMCLRP1  
P0300EBMCLRP2  
P0640EAL  
P0640EALAP  
P0640EALRP1  
P0640EALRP2  
P0640EBL  
P0640EBLAP  
P0640EBLRP1  
P0640EBLRP2  
P0720EAL  
P0720EALAP  
P0720EALRP1  
P0720EALRP2  
P0720EBL  
P0720EBLAP  
P0720EBLRP1  
P0720EBLRP2  
P0900EAL  
P0900EALAP  
P0900EALRP1  
P0900EALRP2  
P0900EBL  
P0900EBLAP  
P0900EBLRP1  
P0900EBLRP2  
P1100EAL  
P1100EALAP  
P1100EALRP1  
P1100EALRP2  
P1100EBL  
P1100EBLAP  
P1100EBLRP1  
P1100EBLRP2  
P1300EAL  
P1300EALAP  
P1300EALRP1  
P1300EALRP2  
P1300EBL  
P1300EBLAP  
P1300EBLRP1  
P1300EBLRP2

**AFFECTED MPN**

P146BP0720EARP

P1500EAL

P1500EALAP

P1500EALRP1

P1500EALRP2

P1500EBL

P1500EBLAP

P1500EBLRP1

P1500EBLRP2

P1800EAL

P1800EALAP

P1800EALRP1

P1800EALRP2

P1800EBL

P1800EBLAP

P1800EBLRP1

P1800EBLRP2

P2300EAL

P2300EALAP

P2300EALRP1

P2300EALRP2

P2300EBL

P2300EBLAP

P2300EBLRP1

P2300EBLRP2

P233P3100EB

P233P3100EBAP

P233P3100EBL

P233P3100EBLAP

P233P3100EBLRP

P233P3100EBRP

P235LP3100EA

P235P3100EA

P2600EAL

P2600EALAP

P2600EALRP1

P2600EALRP2

P2600EBL

P2600EBLAP

P2600EBLRP1

P2600EBLRP2

P3100EAL

P3100EALAP

P3100EALRP1

P3100EALRP2

P3100EBL

**AFFECTED MPN**

P3100EBLAP  
P3100EBLRP1  
P3100EBLRP2  
P3500EAL  
P3500EALAP  
P3500EALRP1  
P3500EALRP2  
P3500EBL  
P3500EBLAP  
P3500EBLRP1  
P3500EBLRP2  
P3100ECLAP  
P3100ECLRP1  
P3100ECLRP2  
P3100ECMCL  
P3100ECMCLAP  
P3100ECMCLRP1  
P3100ECMCLRP2  
P3500ECL  
P3500ECLAP  
P3500ECLRP1  
P3500ECLRP2  
P3500ECMCL  
P3500ECMCLAP  
P3500ECMCLRP1  
P3500ECMCLRP2  
P738P3100ECLRP2  
P758P3100ECL  
P758P3100ECLRP1  
P860P0080ECL  
P859P0300ECL  
P1553UALRP  
P1803UALRP  
P2103UALRP  
P2353UALRP  
P2703UALRP  
P3203UALRP  
P3403UALRP  
P5103UALRP  
P1553UBLRP  
P1803UBLRP  
P2103UBLRP  
P2353UBLRP  
P2703UBLRP  
P3203UBLRP  
P3403UBLRP

**AFFECTED MPN**

P5103UBLRP  
P1553UCLRP  
P1803UCLRP  
P2103UCLRP  
P2353UCLRP  
P2703UCLRP  
P3203UCLRP  
P3403UCLRP  
P5103UCLRP  
A5030UC3LRP  
A2106UC3LRP  
P576P5103UCLRP  
P0084UALRP  
P0304UALRP  
P0644UALRP  
P0724UALRP  
P0904UALRP  
P1104UALRP  
P1304UALRP  
P1504UALRP  
P1804UALRP  
P2304UALRP  
P2604UALRP  
P3104UALRP  
P3504UALRP  
P0084UBLRP  
P0304UBLRP  
P0644UBLRP  
P0724UBLRP  
P0904UBLRP  
P1104UBLRP  
P1304UBLRP  
P1504UBLRP  
P1804UBLRP  
P2304UBLRP  
P2604UBLRP  
P3104UBLRP  
P3504UBLRP  
P0084UCLRP  
P0304UCLRP  
P0644UCLRP  
P0724UCLRP  
P0904UCLRP  
P1104UCLRP  
P1304UCLRP  
P1504UCLRP

**AFFECTED MPN**

P1804UCLRP  
P2304UCLRP  
P2604UCLRP  
P3104UCLRP  
P3504UCLRP  
P0084UCMCLRP  
P0304UCMCLRP  
P0644UCMCLRP  
P0724UCMCLRP  
P0904UCMCLRP  
P1104UCMCLRP  
P1304UCMCLRP  
P1504UCMCLRP  
P1804UCMCLRP  
P2304UCMCLRP  
P2604UCMCLRP  
P3104UCMCLRP  
P3504UCMCLRP  
P0084UAMCLRP  
P0304UAMCLRP  
PLED6U4RP  
A1220UA4LRP  
A1225UA4LRP  
A1220UC4LRP  
A1225UC4LRP  
P0641UALRP  
P0721UALRP  
P0901UALRP  
P1101UALRP  
P1701UALRP  
P0641UCLRP  
P0721UCLRP  
P0901UCLRP  
P1101UCLRP  
P1701UCLRP  
P1556UALRP  
P1806UALRP  
P2106UALRP  
P2356UALRP  
P2706UALRP  
P3206UALRP  
P3406UALRP  
P5106UALRP  
P1556UBLRP  
P1806UBLRP  
P2106UBLRP

**AFFECTED MPN**

P2356UBLRP  
P2706UBLRP  
P3206UBLRP  
P3406UBLRP  
P5106UBLRP  
P1556UCLRP  
P1806UCLRP  
P2106UCLRP  
P2356UCLRP  
P2706UCLRP  
P3206UCLRP  
P3406UCLRP  
P5106UCLRP  
P1556UCMCLRP  
P1806UCMCLRP  
P2106UCMCLRP  
P2356UCMCLRP  
P2706UCMCLRP  
P3206UCMCLRP  
P3406UCMCLRP  
P5106UCMCLRP  
A2106UA6LRP  
A3406UA6LRP  
A5030UA6LRP  
A2106UB6LRP  
A3406UB6LRP  
A5030UB6LRP  
A2106UC6LRP  
A3406UC6LRP  
A5030UC6LRP  
A3614UC6LRP  
P1553UALTP  
P1803UALTP  
P2103UALTP  
P2353UALTP  
P2703UALTP  
P3203UALTP  
P3403UALTP  
P5103UALTP  
P1553UBLTP  
P1803UBLTP  
P2103UBLTP  
P2353UBLTP  
P2703UBLTP  
P3203UBLTP  
P3403UBLTP



**AFFECTED MPN**

P5103UBLTP  
P1553UCLTP  
P1803UCLTP  
P2103UCLTP  
P2353UCLTP  
P2703UCLTP  
P3203UCLTP  
P3403UCLTP  
P5103UCLTP  
A5030UC3LTP  
A2106UC3LTP  
P0084UALTP  
P0304UALTP  
P0644UALTP  
P0724UALTP  
P0904UALTP  
P1104UALTP  
P1304UALTP  
P1504UALTP  
P1804UALTP  
P2304UALTP  
P2604UALTP  
P3104UALTP  
P3504UALTP  
P0084UBLTP  
P0304UBLTP  
P0644UBLTP  
P0724UBLTP  
P0904UBLTP  
P1104UBLTP  
P1304UBLTP  
P1504UBLTP  
P1804UBLTP  
P2304UBLTP  
P2604UBLTP  
P3104UBLTP  
P3504UBLTP  
P0084UCLTP  
P0304UCLTP  
P0644UCLTP  
P0724UCLTP  
P0904UCLTP  
P1104UCLTP  
P1304UCLTP  
P1504UCLTP  
P1804UCLTP

**AFFECTED MPN**

P2304UCLTP  
P2604UCLTP  
P3104UCLTP  
P3504UCLTP  
P0084UCMCLTP  
P0304UCMCLTP  
P0644UCMCLTP  
P0724UCMCLTP  
P0904UCMCLTP  
P1104UCMCLTP  
P1304UCMCLTP  
P1504UCMCLTP  
P1804UCMCLTP  
P2304UCMCLTP  
P2604UCMCLTP  
P3104UCMCLTP  
P3504UCMCLTP  
P0084UAMCLTP  
P0304UAMCLTP  
PLED6U4TP  
A1220UA4LTP  
A1225UA4LTP  
A1220UC4LTP  
A1225UC4LTP  
P0641UALTP  
P0721UALTP  
P0901UALTP  
P1101UALTP  
P1701UALTP  
P0641UCLTP  
P0721UCLTP  
P0901UCLTP  
P1101UCLTP  
P1701UCLTP  
P1556UALTP  
P1806UALTP  
P2106UALTP  
P2356UALTP  
P2706UALTP  
P3206UALTP  
P3406UALTP  
P5106UALTP  
P1556UBLTP  
P1806UBLTP  
P2106UBLTP  
P2356UBLTP

**AFFECTED MPN**

P2706UBLTP  
P3206UBLTP  
P3406UBLTP  
P5106UBLTP  
P1556UCLTP  
P1806UCLTP  
P2106UCLTP  
P2356UCLTP  
P2706UCLTP  
P3206UCLTP  
P3406UCLTP  
P5106UCLTP  
P1556UCMCLTP  
P1806UCMCLTP  
P2106UCMCLTP  
P2356UCMCLTP  
P2706UCMCLTP  
P3206UCMCLTP  
P3406UCMCLTP  
P5106UCMCLTP  
A2106UA6LTP  
A3406UA6LTP  
A5030UA6LTP  
A2106UB6LTP  
A3406UB6LTP  
A5030UB6LTP  
A2106UC6LTP  
A3406UC6LTP  
A5030UC6LTP  
A3614UC6LTP  
P0302AALRP  
P0602AALRP  
P1402AALRP  
P1602AALRP  
P2202AALRP  
P2702AALRP  
P3002AALRP  
P3602AALRP  
P4202AALRP  
P4802AALRP  
P6002AALRP  
P0602ABLRP  
P1402ABLRP  
P1602ABLRP  
P2202ABLRP  
P2702ABLRP

**AFFECTED MPN**

P3002ABLRP  
P3602ABLRP  
P4202ABLRP  
P4802ABLRP  
P6002ABLRP  
P0602ACMCLRP  
P1402ACMCLRP  
P1602ACMCLRP  
P2202ACMCLRP  
P2702ACMCLRP  
P3002ACMCLRP  
P3602ACMCLRP  
P4202ACMCLRP  
P4802ACMCLRP  
P6002ACMCLRP  
P0602ACLRP  
P1402ACLRP  
P1602ACLRP  
P2202ACLRP  
P2702ACLRP  
P3002ACLRP  
P3602ACLRP  
P4202ACLRP  
P4802ACLRP  
P6002ACLRP  
P528P4802ACLRP  
P451P1602ACLRP  
P1553AALRP  
P1803AALRP  
P2103AALRP  
P2353AALRP  
P2703AALRP  
P3203AALRP  
P3403AALRP  
P5103AALRP  
P1553ABLRP  
P1803ABLRP  
P2103ABLRP  
P2353ABLRP  
P2703ABLRP  
P3203ABLRP  
P3403ABLRP  
P5103ABLRP  
P1553ACMCL  
P1803ACMCL  
P2103ACMCL

**AFFECTED MPN**

P2353ACMCL  
P2703ACMCL  
P3203ACMCL  
P3403ACMCL  
P5103ACMCL  
A2106AC3L  
P565P1553AA  
P505P3403AB  
P583FS1  
P620P3203AA60  
P741  
P741FS1  
P662FS1  
P1553ACLRP  
P1803ACLRP  
P2103ACLRP  
P2353ACLRP  
P2703ACLRP  
P3203ACLRP  
P3403ACLRP  
P5103ACLRP  
P484P3403ACL60RP  
P520P5103ACRP  
P823P2703ACLRP  
P0302AAL  
P0602AAL  
P1402AAL  
P1602AAL  
P2202AAL  
P2702AAL  
P3002AAL  
P3602AAL  
P4202AAL  
P4802AAL  
P6002AAL  
P0602ABL  
P1402ABL  
P1602ABL  
P2202ABL  
P2702ABL  
P3002ABL  
P3602ABL  
P4202ABL  
P4802ABL  
P6002ABL  
P0602ACMCL

**AFFECTED MPN**

P1402ACMCL  
P1602ACMCL  
P2202ACMCL  
P2702ACMCL  
P3002ACMCL  
P3602ACMCL  
P4202ACMCL  
P4802ACMCL  
P6002ACMCL  
P196P3002AB61  
P228P6002AB  
P474P4802AB  
P474P4802AB60FS  
P475P6002AB  
P475P6002AB60FS  
P480P4802AB60  
P573P4802AAL  
P0602ACL  
P1402ACL  
P1602ACL  
P2202ACL  
P2702ACL  
P3002ACL  
P3602ACL  
P4202ACL  
P4802ACL  
P6002ACL  
P528P4802ACL  
P378AP6002ACL  
P451P1602ACL  
P536P4802ACLFS1  
P606P4802ABL  
P752P6002ACL60FS1  
P783P4802ACL  
P251P1602ABL  
P1553AAL  
P1803AAL  
P2103AAL  
P2353AAL  
P2703AAL  
P3203AAL  
P3403AAL  
P5103AAL  
P1553ABL  
P1803ABL  
P2103ABL

**AFFECTED MPN**

P2353ABL  
P2703ABL  
P3203ABL  
P3403ABL  
P5103ABL  
P1553ACMCLRP  
P1803ACMCLRP  
P2103ACMCLRP  
P2353ACMCLRP  
P2703ACMCLRP  
P3203ACMCLRP  
P3403ACMCLRP  
P5103ACMCLRP  
A2106AC3LRP  
P497P3403ABRP  
P1553ACL  
P1803ACL  
P2103ACL  
P2353ACL  
P2703ACL  
P3203ACL  
P3403ACL  
P5103ACL  
P281P2103AB  
P318P3203AB  
P318AP3203AC  
P417P3403AB  
P520P5103AC  
P524P3203AC  
P548P3203AC  
P557P3203AC  
P751P3203ACL60FS1  
P549P3203AC  
P0080Q12ALRP  
P0300Q12ALRP  
P0640Q12ALRP  
P0720Q12ALRP  
P0900Q12ALRP  
P1100Q12ALRP  
P1200Q12ALRP  
P1300Q12ALRP  
P1500Q12ALRP  
P1800Q12ALRP  
P2000Q12ALRP  
P2300Q12ALRP  
P2500Q12ALRP

**AFFECTED MPN**

P2600Q12ALRP  
P3100Q12ALRP  
P3500Q12ALRP  
P0080Q12BLRP  
P0300Q12BLRP  
P0640Q12BLRP  
P0720Q12BLRP  
P0900Q12BLRP  
P1100Q12BLRP  
P1200Q12BLRP  
P1300Q12BLRP  
P1500Q12BLRP  
P1800Q12BLRP  
P2000Q12BLRP  
P2300Q12BLRP  
P2500Q12BLRP  
P2600Q12BLRP  
P3100Q12BLRP  
P3500Q12BLRP  
P861P1500Q12BLRP  
PLED6Q12  
PLED9Q12  
PLED13Q12  
PLED18Q12  
PLED6UQ12  
PLED9UQ12  
P840PLED10UQ12  
PLED13UQ12  
PLED18UQ12  
P0080Q22CLRP  
P0300Q22CLRP  
P0640Q22CLRP  
P0720Q22CLRP  
P0900Q22CLRP  
P1100Q22CLRP  
P1200Q22CLRP  
P1300Q22CLRP  
P1500Q22CLRP  
P1800Q22CLRP  
P2000Q22CLRP  
P2300Q22CLRP  
P2500Q22CLRP  
P2600Q22CLRP  
P3100Q22CLRP  
P3500Q22CLRP  
P4500Q22CLRP



**AFFECTED MPN**

P0641Q22CLRP

P0721Q22CLRP

P0901Q22CLRP

P1101Q22CLRP

P1301Q22CLRP

P1701Q22CLRP