



Expertise Applied | Answers Delivered

Littelfuse, Inc.
8755 West Higgins Road, Suite 500
Chicago, IL 60631 USA
(773) 628-1000

Jan 31st, 2025

Dear Valued Customer

This is a notification letter to inform you that we are improving our Moisture Sensitivity Level (MSL) to MSL 1 for various IXYS Brand Thyristor & Diode Discrete surface mount packages.

Package types includes: TO-263(D2PAK), TO-268(D3PAK)

All affected IXYS Brand Thyristors & Diode Discrete surface mount products have been fully qualified following established performance and reliability criteria using alternative EMC (PCN # ESW490-58). Below and succeeding pages summarize the reliability result and change in the packing method.

Please, refer to the attached product list in the last pages for detailed affected product coverage.

Form, fit, function changes : Updated MSL 1 packing method

Effective date : Feb 28th, 2025

Replacement products : N/A

Last time buy : N/A

Reliability Test Result – Moisture Sensitivity Level (MSL)

PACKAGE	DEVICE	REL-TEST	CONDITIONS	SAMPLE SIZE PER LOT	STATUS	RESULT
TO-268	CLA100E1200TZ DLA100IM1200TZ IXG100I800ATZ	TC	100 cycles. -40/+150°C	20	Finished	Completed: Passed reliability
		HTRB	1000hrs	20	Finished	Completed: Passed reliability
		H3TRB	1000hrs, 85°C, 85%r.H.	20	Finished	Completed: Passed reliability
		uHAST	96hrs, 130°C, 85%r.H.	20	Finished	Completed: Passed reliability
		MSL1	168hrs, 85°C, 85%r.H.	11	Finished	Completed: Passed reliability
		MSL3	192hrs, 30°C, 60%r.H.	11	Finished	Completed: Passed reliability
TO-263	DMA30IM1600PZ IXA20I1200PZ	TC	100 cycles. -40/+150°C	20	Finished	Completed: Passed reliability
		HTRB	1000hrs	20	Finished	Completed: Passed reliability
		H3TRB	1000hrs, 85°C, 85%r.H.	20	Finished	Completed: Passed reliability
		uHAST	96hrs, 130°C, 85%r.H.	20	Finished	Completed: Passed reliability
		MSL1	168hrs, 85°C, 85%r.H.	11	Finished	Completed: Passed reliability
		MSL3	192hrs, 30°C, 60%r.H.	11	Finished	Completed: Passed reliability

Packing Method

PACKAGE	MSL 3	MSL 1
TO-263	Moisture barrier bag AMBB desiccant HIC card	Moisture barrier bag/ ESD shielding bag AMBB desiccant 2 reels/ box (optional)
TO-268	Moisture barrier bag AMBB desiccant HIC card	Moisture barrier bag/ ESD shielding bag AMBB desiccant 2 reels/ box (optional)

Your Littelfuse representative is available to discuss more specific details with you or answer any questions you may have. Thank you for your understanding and cooperation!

Yours sincerely,

Salvador M. Cortez Jr.
Global Product Marketing Engineer
Power Bipolar Discrete (Thyristor+Diode)
Littelfuse Asia Sales B.V. PH Branch

Appendix A: Detail Part Number list affected

ELEC Family	Package Type	Part Number
POWER THYRISTOR DISCRETE	TO-263	CLA15E1200NPZ-TRL
POWER THYRISTOR DISCRETE	TO-263	CLA15E1200NPZ-TUB
POWER THYRISTOR DISCRETE	TO-263	CLA20EF1200PZ-TRL
POWER THYRISTOR DISCRETE	TO-263	CLA20EF1200PZ-TUB
POWER THYRISTOR DISCRETE	TO-263	CLA30E1200NPZ-TRL
POWER THYRISTOR DISCRETE	TO-263	CLA30E1200NPZ-TUB
POWER THYRISTOR DISCRETE	TO-263	CLA30E1200PC-TRL
POWER THYRISTOR DISCRETE	TO-263	CLA30E1200PC-TUB
POWER THYRISTOR DISCRETE	TO-263	CLA30MT1200NPZ-TRL
POWER THYRISTOR DISCRETE	TO-263	CLA30MT1200NPZ-TUB
POWER THYRISTOR DISCRETE	TO-263	CLA40E1200NPZ-TRL
POWER THYRISTOR DISCRETE	TO-263	CLA40E1200NPZ-TUB
POWER THYRISTOR DISCRETE	TO-263	CLA40MT1200NPZ-TUB
POWER THYRISTOR DISCRETE	TO-263	CLA5E1200PZ-TUB
POWER THYRISTOR DISCRETE	TO-263	CLB30I1200PZ-TRL
POWER THYRISTOR DISCRETE	TO-263	CLB30I1200PZ-TUB
POWER THYRISTOR DISCRETE	TO-263	CLB40I1200PZ-TRL
POWER THYRISTOR DISCRETE	TO-263	CLB40I1200PZ-TUB
POWER THYRISTOR DISCRETE	TO-263	CLE20E1200PC-TRL
POWER THYRISTOR DISCRETE	TO-263	CLE20E1200PC-TUB
POWER THYRISTOR DISCRETE	TO-263	CMA20E1600PZ-TRL
POWER THYRISTOR DISCRETE	TO-263	CMA20E1600PZ-TUB
POWER THYRISTOR DISCRETE	TO-263	CMA30E1600PZ-TRL
POWER THYRISTOR DISCRETE	TO-263	CMA30E1600PZ-TUB
POWER THYRISTOR DISCRETE	TO-263	CME30E1600PZ-TRL
POWER THYRISTOR DISCRETE	TO-263	CME30E1600PZ-TUB
POWER THYRISTOR DISCRETE	TO-263	CS1854-TRL
POWER THYRISTOR DISCRETE	TO-263	CS1854-TRL
POWER THYRISTOR DISCRETE	TO-263	CS19-08HO1S-TRL
POWER THYRISTOR DISCRETE	TO-263	CS19-08HO1S-TUB
POWER THYRISTOR DISCRETE	TO-263	CS19-12HO1S-TRL
POWER THYRISTOR DISCRETE	TO-263	CS19-12HO1S-TUB

POWER DIODE DISCRETE	TO-263	DAA10EM1800PZ-TRL
POWER DIODE DISCRETE	TO-263	DAA10EM1800PZ-TUB
POWER DIODE DISCRETE	TO-263	DAA10P1800PZ-TUB
POWER DIODE DISCRETE	TO-263	DHG30IM600PC
POWER DIODE DISCRETE	TO-263	DHG30IM600PC-TRL
POWER DIODE DISCRETE	TO-263	DHG30IM600PC-TRL
POWER DIODE DISCRETE	TO-263	DHG30IM600PC-TUB
POWER DIODE DISCRETE	TO-263	DHG30IM600PC-TUB
POWER DIODE DISCRETE	TO-263	DLA20IM800PC-TRL
POWER DIODE DISCRETE	TO-263	DLA20IM800PC-TUB
POWER DIODE DISCRETE	TO-263	DLA40IM800PC-TRL
POWER DIODE DISCRETE	TO-263	DLA40IM800PC-TUB
POWER DIODE DISCRETE	TO-263	DMA10IM1600PZ-TRL
POWER DIODE DISCRETE	TO-263	DMA10IM1600PZ-TUB
POWER DIODE DISCRETE	TO-263	DMA10P1600PZ-TRL
POWER DIODE DISCRETE	TO-263	DMA10P1600PZ-TUB
POWER DIODE DISCRETE	TO-263	DMA10P1800PZ-TUB
POWER DIODE DISCRETE	TO-263	DMA30IM1600PZ-TRL
POWER DIODE DISCRETE	TO-263	DMA30IM1600PZ-TUB
POWER DIODE DISCRETE	TO-263	DNA30E2200PZ-TRL
POWER DIODE DISCRETE	TO-263	DNA30E2200PZ-TUB
POWER DIODE DISCRETE	TO-263	DNA30EM2200PZ-TRL
POWER DIODE DISCRETE	TO-263	DNA30EM2200PZ-TUB
POWER DIODE DISCRETE	TO-263	DPG20C400PC-TRL
POWER DIODE DISCRETE	TO-263	DPG20C400PC-TUB
POWER DIODE DISCRETE	TO-263	DPG30C200PC-TRL
POWER DIODE DISCRETE	TO-263	DPG30C200PC-TUB
POWER DIODE DISCRETE	TO-263	DPG30C300PC-TRL
POWER DIODE DISCRETE	TO-263	DPG30C300PC-TUB
POWER DIODE DISCRETE	TO-263	DPG30IM300PC-TRL
POWER DIODE DISCRETE	TO-263	DPG30IM300PC-TUB
POWER DIODE DISCRETE	TO-263	DPG30IM400PC-TUB
POWER DIODE DISCRETE	TO-263	DPG60C300PC-TRL
POWER DIODE DISCRETE	TO-263	DPG60C300PC-TUB

POWER DIODE DISCRETE	TO-263	DPG60IM300PC-TRL
POWER DIODE DISCRETE	TO-263	DPG60IM300PC-TUB
POWER DIODE DISCRETE	TO-263	DSA30C45PC-TRL
POWER DIODE DISCRETE	TO-263	DSEC16-12AS-TRL
POWER DIODE DISCRETE	TO-263	DSEC16-12AS-TUB
POWER DIODE DISCRETE	TO-263	DSEI12-06AS-TRL
POWER DIODE DISCRETE	TO-263	DSEI12-06AS-TUB
POWER DIODE DISCRETE	TO-263	DSEI12-12AZ-TUB
POWER DIODE DISCRETE	TO-263	DSEI19-06AS-TRL
POWER DIODE DISCRETE	TO-263	DSEI19-06AS-TUB
POWER DIODE DISCRETE	TO-263	DSEI25-06AS-TRL
POWER DIODE DISCRETE	TO-263	DSEI25-06AS-TUB
POWER DIODE DISCRETE	TO-263	DSEI36-06AS-TRL
POWER DIODE DISCRETE	TO-263	DSEI36-06AS-TUB
POWER DIODE DISCRETE	TO-263	DSEI8-06AS-TRL
POWER DIODE DISCRETE	TO-263	DSEI8-06AS-TUB
POWER DIODE DISCRETE	TO-263	DSEP12-12AZ-TRL
POWER DIODE DISCRETE	TO-263	DSEP12-12AZ-TUB
POWER DIODE DISCRETE	TO-263	DSEP12-12BZ-TRL
POWER DIODE DISCRETE	TO-263	DSEP12-12BZ-TUB
POWER DIODE DISCRETE	TO-263	DSEP15-06AS-TRL
POWER DIODE DISCRETE	TO-263	DSEP15-06AS-TUB
POWER DIODE DISCRETE	TO-263	DSEP15-06BS-TRL
POWER DIODE DISCRETE	TO-263	DSEP15-06BS-TUB
POWER DIODE DISCRETE	TO-263	DSEP29-06AS-TRL
POWER DIODE DISCRETE	TO-263	DSEP29-06AS-TUB
POWER DIODE DISCRETE	TO-263	DSEP40-03AS-TRL
POWER DIODE DISCRETE	TO-263	DSEP40-03AS-TUB
POWER DIODE DISCRETE	TO-263	DSI30-08AS-TRL
POWER DIODE DISCRETE	TO-263	DSI30-08AS-TUB
POWER DIODE DISCRETE	TO-263	DSI30-12AS-TRL
POWER DIODE DISCRETE	TO-263	DSI30-12AS-TUB
POWER DIODE DISCRETE	TO-263	DSI30-16AS-TRL
POWER DIODE DISCRETE	TO-263	DSI30-16AS-TUB
POWER DIODE DISCRETE	TO-263	DSP8-08AS-TRL

POWER DIODE DISCRETE	TO-263	DSP8-08AS-TUB
POWER DIODE DISCRETE	TO-263	DSP8-08S-TRL
POWER DIODE DISCRETE	TO-263	DSP8-08S-TUB
POWER DIODE DISCRETE	TO-263	DSP8-12AS-TRL
POWER DIODE DISCRETE	TO-263	DSP8-12AS-TUB
POWER DIODE DISCRETE	TO-263	DSP8-12S-TRL
POWER DIODE DISCRETE	TO-263	DSP8-12S-TUB
POWER DIODE DISCRETE	TO-263	DSS10-01AS-TRL
POWER DIODE DISCRETE	TO-263	DSS16-0045AS-TRL
POWER DIODE DISCRETE	TO-263	DSS16-01AS-TRL
POWER DIODE DISCRETE	TO-263	DSSK28-006BS-TRL
POWER DIODE DISCRETE	TO-263	DSSK38-0025BS-TRL
POWER DIODE DISCRETE	TO-263	DSSK48-003BS-TRL
POWER THYRISTOR DISCRETE	TO-268	CLA50E1200TC-TRL
POWER THYRISTOR DISCRETE	TO-268	CLA50E1200TC-TRL
POWER THYRISTOR DISCRETE	TO-268	CLA50E1200TC-TUB
POWER THYRISTOR DISCRETE	TO-268	CLA50E1200TC-TUB
POWER THYRISTOR DISCRETE	TO-268	CS20-25MOT1-TUB
POWER DIODE DISCRETE	TO-268	DSEP60-06AT-TUB
POWER DIODE DISCRETE	TO-268	DSEP60-06AT-TUB
POWER DIODE DISCRETE	TO-268	DSP25-12AT-TRL
POWER DIODE DISCRETE	TO-268	DSP25-12AT-TRL
POWER DIODE DISCRETE	TO-268	DSP25-12AT-TUB
POWER DIODE DISCRETE	TO-268	DSP25-12AT-TUB
POWER DIODE DISCRETE	TO-268	DSP25-16AT-TRL
POWER DIODE DISCRETE	TO-268	DSP25-16AT-TRL
POWER DIODE DISCRETE	TO-268	DSP25-16AT-TUB
POWER DIODE DISCRETE	TO-268	DSP25-16AT-TUB
POWER THYRISTOR DISCRETE	TO-268 (HV)	CLA100E1200TZ-TUB
POWER THYRISTOR DISCRETE	TO-268 (HV)	CLA60MT1200NTZ-TRL
POWER THYRISTOR DISCRETE	TO-268 (HV)	CLA60MT1200NTZ-TUB
POWER THYRISTOR DISCRETE	TO-268 (HV)	CMA50E1600TZ-TRL
POWER THYRISTOR DISCRETE	TO-268 (HV)	CMA50E1600TZ-TUB
POWER THYRISTOR DISCRETE	TO-268 (HV)	CNE60E2200TZ-TUB
POWER DIODE DISCRETE	TO-268 (HV)	DLA100IM1200TZ-TUB

POWER DIODE DISCRETE	TO-268 (HV)	DSEI120-12AZ-TUB
POWER DIODE DISCRETE	TO-268 (HV)	DSEP60-12AZ-TUB
POWER DIODE DISCRETE	TO-268 (HV)	DSEP90-12AZ-TUB
POWER DIODE DISCRETE	TO-268 (HV)	DSP45-12AZ-TRL
POWER DIODE DISCRETE	TO-268 (HV)	DSP45-12AZ-TUB

POWER DIODE DISCRETE	TO-268 (HV)	DSP45-16AZ-TUB
-------------------------	-------------	----------------