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June 12th, 2020

Advanced notice of Molding Compound change for various Discrete Power & IC devices

To our valued customers,

This is an advisory notice of an upcoming change of the Epoxy Molding Compound (EMC) material used in various discrete power and IC packages.

As you maybe aware, Samsung SDI has decided to exit the EMC material business and as a result we are well advanced in qualifying new materials from alternative vendors. In most instances we are using materials that we have already qualified for similar applications and as such we expecting this to be a relatively low risk exercise.

As this affects several different technology / package combinations and will result in a number of individual PCNs, we are providing this advanced overview such that we can work with you as far as possible to minimise the impact and disruption to your business of this upcoming change.

The following table shows a high level view of when we expect to release each PCN, by package and technology.

	PACKAGE TYPE										
	ISOTO-220	ISOTO-247	ISOTO-247PLUS	ISOTO-264PLUS	I4PAK	SMPD	TO-252	TO-220F	TO-264	TO-3P	RF (DE)
Thyristor / Diode	Q3	Q2	Q2	Q3	Q2	Q4	Q2	Q3	Q4	Q2	
MOSFET / IGBT	Q3	Q4	Q2,Q4	Q3,Q4	Q2,Q4	Q4	Q3	Q3	Q4	Q3	Q4
IC / SSR				Q4	Q4						

Appendix to this notice you will find a detailed list of part numbers affected (an electronic copy is available on request).

Individual PCNs will follow in the usual manner and we will do our utmost to release these in logical, concise groups.

In the first instance, we would kindly ask you to review the information and address any questions and any specific individual needs to your usual Sales contact.

Thank you and kind Regards,

Ashley Golland
Director, Product Management, Medium and High power
Semiconductor Business Unit

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List of affected parts

Part Name	Package Type	Technology Type	Report Available Time
IXYF16N250CV1	I4PAK	IGBT	Q4
IXTF2N300P3	I4PAK	MOSFET	Q4
IXTF1R4N450	I4PAK	MOSFET	Q4
IXTF1N450	I4PAK	MOSFET	Q4
IXTF02N450	I4PAK	MOSFET	Q4
IXTF6N200P3	I4PAK	MOSFET	Q4
IXBF12N300	I4PAK	IGBT	Q4
IXBF20N300	I4PAK	IGBT	Q4
IXGF32N170	I4PAK	IGBT	Q4
IXGF25N250	I4PAK	IGBT	Q4
IXGF20N300	I4PAK	IGBT	Q4
IXGF36N300	I4PAK	IGBT	Q4
IXTF1N400	I4PAK	MOSFET	Q4
IXGF1947	I4PAK	IGBT	Q4
IXGF30N400	I4PAK	IGBT	Q4
IXTF1N250	I4PAK	MOSFET	Q4
IXGF20N250	I4PAK	IGBT	Q4
IXYF30N450	I4PAK	IGBT	Q4
IXYF40N450	I4PAK	IGBT	Q4
FMM150-0075X2F	I4PAK	MOSFET	Q4
IXTF200N10T	I4PAK	MOSFET	Q4
FMM60-02TF	I4PAK	MOSFET	Q4
FMM50-025TF	I4PAK	MOSFET	Q4
FMM22-05PF	I4PAK	MOSFET	Q4
IXBF22N300	I4PAK	IGBT	Q4
IXBF32N300	I4PAK	IGBT	Q4
IXBF55N300	I4PAK	IGBT	Q4
IXBF1958	I4PAK	IGBT	Q4
IXBF1948	I4PAK	IGBT	Q4
IXBF20N360	I4PAK	IGBT	Q4
IXBF50N360	I4PAK	IGBT	Q4
FMM22-06PF	I4PAK	MOSFET	Q4
IXYF30N170CV1	I4PAK	IGBT	Q4
IXBF16N360	I4PAK	IGBT	Q4
IXBF42N300	I4PAK	IGBT	Q4
MMIX4B20N300	SMPD	IGBT	Q4
MMIX1969	SMPD	IGBT	Q4
MMIX1G320N60B3	SMPD	IGBT	Q4
MMIX1H60N150V1	SMPD	IGBT	Q4
MMIX4G20N250	SMPD	IGBT	Q4
MMIX1T660N04T4	SMPD	MOSFET	Q4
MMIX1T600N04T2	SMPD	MOSFET	Q4
MMIX1T550N055T2	SMPD	MOSFET	Q4
MMIX1F520N075T2	SMPD	MOSFET	Q4
MMIX1F420N10T	SMPD	MOSFET	Q4

MMIX1F360N15T2	SMPD	MOSFET	Q4
MMIX2F150N20T	SMPD	MOSFET	Q4
MMIX1F230N20T	SMPD	MOSFET	Q4
MMIX1F180N25T	SMPD	MOSFET	Q4
MMIX1F160N30T	SMPD	MOSFET	Q4
MMIX1X200N60B3	SMPD	IGBT	Q4
MMIX1X340N65B4	SMPD	IGBT	Q4
MMIX1F210N30P3	SMPD	MOSFET	Q4
IXFR14N100Q2	ISOTO-247PLUS	MOSFET	Q4
IXFR36N50P	ISOTO-247PLUS	MOSFET	Q4
IXFR24N50Q	ISOTO-247PLUS	MOSFET	Q4
IXGL75N250	ISOTO-264PLUS	IGBT	Q4
IXYL60N450	ISOTO-264PLUS	IGBT	Q4
IXFL60N80P	ISOTO-264PLUS	MOSFET	Q4
IXTL2X180N10T	ISOTO-264PLUS	MOSFET	Q4
IXFL210N30P3	ISOTO-264PLUS	MOSFET	Q4
IXFL132N50P3	ISOTO-264PLUS	MOSFET	Q4
IXBL60N360	ISOTO-264PLUS	IGBT	Q4
IXFL80N50Q2	ISOTO-264PLUS	MOSFET	Q4
IXFL38N100Q2	ISOTO-264PLUS	MOSFET	Q4
IXFL100N50P	ISOTO-264PLUS	MOSFET	Q4
IXFL38N100P	ISOTO-264PLUS	MOSFET	Q4
IXFL32N120P	ISOTO-264PLUS	MOSFET	Q4
IXFL82N60P	ISOTO-264PLUS	MOSFET	Q4
IXEL40N400	ISOTO-264PLUS	IGBT	Q4
IXFL34N100	ISOTO-264PLUS	MOSFET	Q4
IXBL64N250	ISOTO-264PLUS	IGBT	Q4
IXFL44N100P	ISOTO-264PLUS	MOSFET	Q4
IXBL60N360	ISOTO-264PLUS	IGBT	Q4
IXYL40N250CV1	ISOTO-264PLUS	IGBT+Diode	Q4
IXYL50N170CV1	ISOTO-264PLUS	IGBT+Diode	Q4
IXFL60N80P	ISOTO-264PLUS	MOSFET	Q4
IXTZ550N055T2	DE475	MOSFET	Q4
IXFZ520N075T2	DE475	MOSFET	Q4
IXFZ140N25T	DE475	MOSFET	Q4
IXTR68P20T	ISOTO-247PLUS	MOSFET	Q4
IXTR210P10T	ISOTO-247PLUS	MOSFET	Q4
IXTR120P20T	ISOTO-247PLUS	MOSFET	Q4
IXFR20N80P	ISOTO-247PLUS	MOSFET	Q4
IXFR180N10	ISOTO-247PLUS	MOSFET	Q4
IXFR24N50	ISOTO-247PLUS	MOSFET	Q4
IXFR26N50	ISOTO-247PLUS	MOSFET	Q4
IXFR1871	ISOTO-247PLUS	MOSFET	Q4
IXFR30N60P	ISOTO-247PLUS	MOSFET	Q4
IXYR100N120C3	ISOTO-247PLUS	IGBT	Q4
IXFJ20N85X	ISOTO-247	MOSFET	Q4
IXFJ80N25X3	ISOTO-247	MOSFET	Q4
IXYJ20N120C3D1	ISOTO-247	IGBT	Q4
IXTJ6N150	ISOTO-247	MOSFET	Q4

IXFJ26N50P3	ISOTO-247	MOSFET	Q4
IXTJ4N150	ISOTO-247	MOSFET	Q4
IXGR55N120A3H1	ISOTO-247PLUS	IGBT	Q4
IXGR24N120C3D1	ISOTO-247PLUS	IGBT	Q4
IXGR60N60C3C1	ISOTO-247PLUS	IGBT	Q4
IXGR60N60C3D1	ISOTO-247PLUS	IGBT	Q4
IXGR72N60B3H1	ISOTO-247PLUS	IGBT	Q4
IXGR72N60A3H1	ISOTO-247PLUS	IGBT	Q4
IXGR48N60B3D1	ISOTO-247PLUS	IGBT	Q4
IXGR48N60C3D1	ISOTO-247PLUS	IGBT	Q4
IXFR102N30P	ISOTO-247PLUS	MOSFET	Q4
IXTR170P10P	ISOTO-247PLUS	MOSFET	Q4
IXTR90P20P	ISOTO-247PLUS	MOSFET	Q4
IXFR12N100Q	ISOTO-247PLUS	MOSFET	Q4
IXFR18N90P	ISOTO-247PLUS	MOSFET	Q4
IXGR72N60C3	ISOTO-247PLUS	IGBT	Q4
IXGR72N60C3D1	ISOTO-247PLUS	IGBT	Q4
IXGR72N60A3H1	ISOTO-247PLUS	IGBT	Q4
IXGR72N60B3H1	ISOTO-247PLUS	IGBT	Q4
IXGR48N60B3D1	ISOTO-247PLUS	IGBT	Q4
IXGR50N90B2D1	ISOTO-247PLUS	IGBT	Q4
IXGR32N170AH1	ISOTO-247PLUS	IGBT	Q4
IXGR32N170H1	ISOTO-247PLUS	IGBT	Q4
IXGR16N170AH1	ISOTO-247PLUS	IGBT	Q4
IXYR100N65A3V1	ISOTO-247PLUS	IGBT	Q4
IXGR60N60C3C1	ISOTO-247PLUS	IGBT	Q4
IXGR60N60C3D1	ISOTO-247PLUS	IGBT	Q4
IXGR60N60C3D1	ISOTO-247PLUS	IGBT	Q4
IXGR72N60B3H1	ISOTO-247PLUS	IGBT	Q4
IXGR72N60A3H1	ISOTO-247PLUS	IGBT	Q4
IXYR50N120C3D1	ISOTO-247PLUS	IGBT	Q4
IXXR100N60B3H1	ISOTO-247PLUS	IGBT	Q4
IXXR110N65B4H1	ISOTO-247PLUS	IGBT	Q4
IXGR48N60B3D1	ISOTO-247PLUS	IGBT	Q4
IXGR48N60C3D1	ISOTO-247PLUS	IGBT	Q4
IXXR110N65B4H1	ISOTO-247PLUS	IGBT	Q4
IXGR72N60A3H1	ISOTO-247PLUS	IGBT	Q4
IXGR72N60B3H1	ISOTO-247PLUS	IGBT	Q4
IXXR100N60B3H1	ISOTO-247PLUS	IGBT	Q4
IXTL2N450	ISOTO-264PLUS	MOSFET	Q4
IXTL2N470	ISOTO-264PLUS	MOSFET	Q4
IXBL64N250	ISOTO-264PLUS	IGBT	Q4
IXGL200N60B3	ISOTO-264PLUS	IGBT	Q4
IXFR44N50Q3	ISOTO-247PLUS	MOSFET	Q4
IXFR32N100Q3	ISOTO-247PLUS	MOSFET	Q4
IXFR64N50Q3	ISOTO-247PLUS	MOSFET	Q4
IXFR48N60Q3	ISOTO-247PLUS	MOSFET	Q4
IXFR32N80Q3	ISOTO-247PLUS	MOSFET	Q4
IXFR24N100Q3	ISOTO-247PLUS	MOSFET	Q4

IXFR44N50P	ISOTO-247PLUS	MOSFET	Q4
IXFR36N60P	ISOTO-247PLUS	MOSFET	Q4
IXFR64N60P	ISOTO-247PLUS	MOSFET	Q4
IXFR44N80P	ISOTO-247PLUS	MOSFET	Q4
IXFR40N90P	ISOTO-247PLUS	MOSFET	Q4
IXFR32N100P	ISOTO-247PLUS	MOSFET	Q4
IXFR26N120P	ISOTO-247PLUS	MOSFET	Q4
IXFR48N60P	ISOTO-247PLUS	MOSFET	Q4
IXFR24N100	ISOTO-247PLUS	MOSFET	Q4
IXFR32N80P	ISOTO-247PLUS	MOSFET	Q4
IXFR80N50Q3	ISOTO-247PLUS	MOSFET	Q4
IXFR64N60Q3	ISOTO-247PLUS	MOSFET	Q4
IXFR24N80P	ISOTO-247PLUS	MOSFET	Q4
IXFR48N50Q	ISOTO-247PLUS	MOSFET	Q4
IXFR44N50Q	ISOTO-247PLUS	MOSFET	Q4
IXFR80N50P	ISOTO-247PLUS	MOSFET	Q4
IXTR140P10T	ISOTO-247PLUS	MOSFET	Q4
IXTR102N65X2	ISOTO-247PLUS	MOSFET	Q4
IXGR120N60B	ISOTO-247PLUS	IGBT	Q4
IXGR72N60C3	ISOTO-247PLUS	IGBT	Q4
IXFR4N100Q	ISOTO-247PLUS	MOSFET	Q4
IXFR58N20Q	ISOTO-247PLUS	MOSFET	Q4
IXFR24N50Q	ISOTO-247PLUS	MOSFET	Q4
MMIX1X200N60B3H1	SMPD	IGBT	Q4
MMIX1X100N60B3H1	SMPD	IGBT	Q4
MMIX1Y100N120C3H1	SMPD	IGBT	Q4
MMJX1H40N150	SMPD	MOS Gate Thyristor	Q4
IXFR15N100Q3	ISOTO-247PLUS	MOSFET	Q4
IXGR120N60B	ISOTO-247PLUS	IGBT	Q4
IXFR230N20T	ISOTO-247PLUS	MOSFET	Q4
IXYR100N120C3	ISOTO-247PLUS	IGBT	Q4
IXFR44N50Q	ISOTO-247PLUS	MOSFET	Q4
IXFR48N50Q	ISOTO-247PLUS	MOSFET	Q4
IXGR6N170A	ISOTO-247PLUS	IGBT	Q4
MMIX1F132N50P3	SMPD	MOSFET	Q4
MMIX1F132N50P3	SMPD	MOSFET	Q4
MMIX1T132N50P3	SMPD	MOSFET	Q4
MMIX1T132N50P3	SMPD	MOSFET	Q4
MMIX4B22N300	SMPD	IGBT	Q4
MMIX4B22N300-2	SMPD	IGBT	Q4
MMIX1992	SMPD	MOSFET	Q4
MMIX1F40N110P	SMPD	MOSFET	Q4
MMIX1F44N100Q3	SMPD	MOSFET	Q4
MMIX2F60N50P3	SMPD	MOSFET	Q4
MMIX2F60N50P3	SMPD	MOSFET	Q4
MMIX4B12N300	SMPD	IGBT	Q4
MMIX1G120N120A3V1	SMPD	IGBT	Q4
MMIX1Y25N250CV1	SMPD	IGBT	Q4
MMIX1Y100N120C3H1	SMPD	IGBT	Q4

MMIX1Y82N120C3H1	SMPD	IGBT	Q4
MMIX1X100N60B3H1	SMPD	IGBT	Q4
MMIX1X200N60B3H1	SMPD	IGBT	Q4
IXTR40P50P	ISOTO-247PLUS	MOSFET	Q4
IXTR32P60P	ISOTO-247PLUS	MOSFET	Q4
IXFR80N60P3	ISOTO-247PLUS	MOSFET	Q4
IXTR36P15P	ISOTO-247PLUS	MOSFET	Q4
IXTR48P20P	ISOTO-247PLUS	MOSFET	Q4
IXTR20P50P	ISOTO-247PLUS	MOSFET	Q4
IXTR16P60P	ISOTO-247PLUS	MOSFET	Q4
IXFR21N100Q	ISOTO-247PLUS	MOSFET	Q4
IXFR140N30P	ISOTO-247PLUS	MOSFET	Q4
IXFR38N80Q2	ISOTO-247PLUS	MOSFET	Q4
IXFR64N50P	ISOTO-247PLUS	MOSFET	Q4
IXFR180N07	ISOTO-247PLUS	MOSFET	Q4
IXFR180N06	ISOTO-247PLUS	MOSFET	Q4
IXFR120N20	ISOTO-247PLUS	MOSFET	Q4
IXFR90N30	ISOTO-247PLUS	MOSFET	Q4
IXFR55N50	ISOTO-247PLUS	MOSFET	Q4
IXFR55N50	ISOTO-247PLUS	MOSFET	Q4
IXFR44N60	ISOTO-247PLUS	MOSFET	Q4
IXFR36N50P	ISOTO-247PLUS	MOSFET	Q4
IXFR24N90P	ISOTO-247PLUS	MOSFET	Q4
IXFR16N120P	ISOTO-247PLUS	MOSFET	Q4
IXFR26N100P	ISOTO-247PLUS	MOSFET	Q4
IXFR20N120P	ISOTO-247PLUS	MOSFET	Q4
IXFR200N10P	ISOTO-247PLUS	MOSFET	Q4
IXTR200N10P	ISOTO-247PLUS	MOSFET	Q4
IXFR180N15P	ISOTO-247PLUS	MOSFET	Q4
IXFR140N20P	ISOTO-247PLUS	MOSFET	Q4
LKK4706C5	ISOTO-264PLUS	MOSFET	Q3
IXA40I4000KN	ISOTO-264PLUS	IGBT	Q3
IXG5I4500KN	ISOTO-264PLUS	IGBT	Q3
IXG65I3300KN	ISOTO-264PLUS	IGBT	Q3
IXLF19N220A_250A_300A	I4PAK	IGBT	Q2
FII50-12EL	I4PAK	IGBT+Diode	Q2
FBE22-06NI	I4PAK	Diode	Q2
FMD47-06KC5	I4PAK	MOSFET	Q2
FBS10-12SC TDI	I4PAK	Diode	Q2
CMA30P1600FC	I4PAK	Thyristor	Q2
CMA50P1600FC	I4PAK	Thyristor	Q2
FMD15-06KC5	I4PAK	MOSFET	Q2
FDM15-06KC5	I4PAK	MOSFET	Q2
FDM47-06KC5	I4PAK	MOSFET	Q2
FBS16-06SC	I4PAK	Diode	Q2
FBO40-12N	I4PAK	Diode	Q2
FUO22-08_12_16N	I4PAK	Diode	Q2
FII40-06D	I4PAK	IGBT+Diode	Q2
FMD21-05QC	I4PAK	MOSFET+Diode	Q2

FBO16-08_12N	I4PAK	Diode	Q2
FUE30-12N1	I4PAK	Diode	Q2
CS45-16IO1R	ISOTO-247PLUS	Thyristor	Q2
DSS17-06CR	ISOTO-247PLUS	Diode	Q2
IRA37IH1200HJ	ISOTO-247PLUS	IGBT+Diode	Q2
DSA90C200HR	ISOTO-247	Diode	Q2
DMA50P1200HR	ISOTO-247	Diode	Q2
CLA60MT1200HR	ISOTO-247	Thyristor	Q2
CLA40E1200HR	ISOTO-247	Thyristor	Q2
CMA40E1600HR	ISOTO-247	Thyristor	Q2
DMA30P1600HR	ISOTO-247	Diode	Q2
MKH24I650HR	ISOTO-247	MOSFET	Q2
CLA80MT1200NHR	ISOTO-247	Thyristor	Q2
CMA60MT1600NHR	ISOTO-247	Thyristor	Q2
DPF30P600HR	ISOTO-247	Thyristor	Q2
ITF48IF1200HR	ISOTO-247	IGBT+Diode	Q2
DMA10P1200HR	ISOTO-247	Diode	Q2
CLA40MT1200NHR	ISOTO-247	Thyristor	Q2
DMA10P1600HR	ISOTO-247	Diode	Q2
DCG20C1200HR	ISOTO-247	Diode	Q2
DCG10P1200HR	ISOTO-247	Diode	Q2
DCG35C1200HR	ISOTO-247	Diode	Q2
DCG17P1200HR	ISOTO-247	Diode	Q2
CMA80MT1600NHR	ISOTO-247	Thyristor	Q2
DSSK70-008AR	ISOTO-247PLUS	Diode	Q2
IXKC20N60C	ISOTO-220	MOSFET	Q3
CS29-08_12 IO1C	ISOTO-220	Thyristor	Q3
DSEE15-12CC	ISOTO-220	Diode	Q3
DSEE29-12CC	ISOTO-220	Diode	Q3
IXKC40N60C	ISOTO-220	MOSFET	Q3
DSEC 29-06AC	ISOTO-220	Diode	Q3
IXUC200N055	ISOTO-220	MOSFET	Q3
IXKC25N80C	ISOTO-220	MOSFET	Q3
DSEE 8-08CC	ISOTO-220	Diode	Q3
DSS 20-01AC	ISOTO-220	Diode	Q3
IXKC13N80C	ISOTO-220	MOSFET	Q3
IXKC23N60C5	ISOTO-220	MOSFET	Q3
IXKC19N60C5	ISOTO-220	MOSFET	Q3
IXKC15N60C5	ISOTO-220	MOSFET	Q3
DSEC 16-06AC	ISOTO-220	Diode	Q3
DSEC 59-06BC	ISOTO-220	Diode	Q3
DPG10P400PJ	ISOTO-220	Diode	Q3
CSM1214PI	ISOTO-220	Diode	Q3
FMD40-06KC	I4PAK	MOSFET	Q2
FBS10-06SC	I4PAK	Diode	Q2
FUO50-16N	I4PAK	Diode	Q2
IXKR40N60C	ISOTO-247PLUS	MOSFET	Q2
DSSS30-01AR	ISOTO-247PLUS	Diode	Q2
DSSS35-008AR	ISOTO-247PLUS	Diode	Q2

DSSK60-015AR	ISOTO-247PLUS	Diode	Q2
DSSK60-02AR	ISOTO-247PLUS	Diode	Q2
IXER35N120D1	ISOTO-247PLUS	IGBT+Diode	Q2
DSEP30-06BR	ISOTO-247PLUS	Diode	Q2
IXKR25N80C	ISOTO-247PLUS	MOSFET	Q2
DSEP75-06AR	ISOTO-247PLUS	Diode	Q2
DSEP30-12AR	ISOTO-247PLUS	Diode	Q2
IXER20N120D1	ISOTO-247PLUS	IGBT+Diode	Q2
DSEP60-12AR	ISOTO-247PLUS	Diode	Q2
DPG60C300HJ	ISOTO-247PLUS	Diode	Q2
DSEP15-12CR	ISOTO-247PLUS	Diode	Q2
DSP25-16AR	ISOTO-247PLUS	Diode	Q2
DPH30IS600HI	ISOTO-247PLUS	Diode	Q2
IXKR47N60C5	ISOTO-247PLUS	MOSFET	Q2
DSI45-16AR	ISOTO-247PLUS	Diode	Q2
IXA55I1200HJ	ISOTO-247PLUS	IGBT	Q2
IXA37IF1200HJ	ISOTO-247PLUS	IGBT+Diode	Q2
IXA17IF1200HJ	ISOTO-247PLUS	IGBT+Diode	Q2
IXA27IF1200HJ	ISOTO-247PLUS	IGBT+Diode	Q2
DSP45-16AR	ISOTO-247PLUS	Diode	Q2
DE150-102N02A	DE150	MOSFET	Q4
DE150-201N09A	DE150	MOSFET	Q4
DE150-501N04A	DE150	MOSFET	Q4
DE275-102N06A	DE275	MOSFET	Q4
DE275X2-102N06A	DE275x2	MOSFET	Q4
DE275X2-501N16A	DE275x2	MOSFET	Q4
DE375-0001	DE375	MOSFET	Q4
DE375-102N12A	DE375	MOSFET	Q4
DE375-501N21A	DE375	MOSFET	Q4
DE475-102N21A	DE475	MOSFET	Q4
DE475-501N44A	DE475	MOSFET	Q4
IXRFD630	DE275	MOSFET	Q4
IXRFD631-NRF	DE275	MOSFET	Q4
IXZ210N50L2	DE275	MOSFET	Q4
IXZ2210N50L2	DE275x2	MOSFET	Q4
IXZ308N120	DE375	MOSFET	Q4
IXZ318N50	DE375	MOSFET	Q4
DHG 55I3300 FE	I4PAK	Diode	Q2
DNA 30E2200 FE	I4PAK	Diode	Q2
CS 1710	I4PAK	Thyristor	Q2
CNA 30E2200 FB	I4PAK	Thyristor	Q2
MKE 11R600 DCGFC	I4PAK	IC/SSR	Q4
CLA 40P1200FC	I4PAK	Thyristor	Q2
MXB12R650DCGFC	I4PAK	IC/SSR	Q4
CSM1214PI	ISOTO-220	Diode	Q3
DPG 10P400 PJ	ISOTO-220	Diode	Q3
DPG 30P300 PJ	ISOTO-220	Diode	Q3
DPG 30P400 PJ	ISOTO-220	Diode	Q3
IXA37IF1200HJ	ISOTO-247PLUS	IGBT	Q2

IXA17IF1200HJ	ISOTO-247PLUS	IGBT	Q2
IXA27IF1200HJ	ISOTO-247PLUS	IGBT	Q2
CS60-16IO1R	ISOTO-247PLUS	Thyristor	Q2
DPH 30IS600 HI	ISOTO-247PLUS	Diode	Q2
DSS 17-06 CR	ISOTO-247PLUS	Diode	Q2
DSEP 30-12 CR	ISOTO-247PLUS	Diode	Q2
DSEP 30-12 AR	ISOTO-247PLUS	Diode	Q2
DSEP 30-06 BR	ISOTO-247PLUS	Diode	Q2
DSI 45-16 AR	ISOTO-247PLUS	Diode	Q2
DSEI30-10AR	ISOTO-247PLUS	Diode	Q2
DPF 60C200 HJ	ISOTO-247PLUS	Diode	Q2
DSEK60-02AR	ISOTO-247PLUS	Diode	Q2
DSIK45-16AR	ISOTO-247PLUS	Diode	Q2
DSSK80-006BR	ISOTO-247PLUS	Diode	Q2
IXDR30N120D1	ISOTO-247PLUS	IGBT	Q2
CS 45-16 IO1R	ISOTO-247PLUS	Thyristor	Q2
DHG 40I4500 KO	ISOTO-264PLUS	Diode	Q3
DNA120E2200KO	ISOTO-264PLUS	Diode	Q3
CSM 160 KP	ISOTO-264PLUS	IC/SSR	Q4
CSM 162 KP	ISOTO-264PLUS	IC/SSR	Q4
CPC1708J	I4PAK	IC/SSR	Q4
CPC1786J	I4PAK	IC/SSR	Q4
CPC1908J	I4PAK	IC/SSR	Q4
CPC1967J	I4PAK	IC/SSR	Q4
CPC1977J	I4PAK	IC/SSR	Q4
CPC1978J	I4PAK	IC/SSR	Q4
CPC1998J	I4PAK	IC/SSR	Q4
CPC1709J	ISOTO-264PLUS	IC/SSR	Q4
CPC1718J	ISOTO-264PLUS	IC/SSR	Q4
CPC1727J	ISOTO-264PLUS	IC/SSR	Q4
CPC1779J	ISOTO-264PLUS	IC/SSR	Q4
CPC1788J	ISOTO-264PLUS	IC/SSR	Q4
CPC1909J	ISOTO-264PLUS	IC/SSR	Q4
CPC1918J	ISOTO-264PLUS	IC/SSR	Q4
CPC1927J	ISOTO-264PLUS	IC/SSR	Q4
CPC1968J	ISOTO-264PLUS	IC/SSR	Q4
CPC1979J	ISOTO-264PLUS	IC/SSR	Q4
CPC1988J	ISOTO-264PLUS	IC/SSR	Q4
CLA100E1200KB	TO-264	Thyristor	Q4
CLA5E1200UC	TO-252	Thyristor	Q2
CLA5E1200UC	TO-252	Thyristor	Q2
CMA30E1600PN	TO-220F	Thyristor	Q3
CS22-08IO1M	TO-220F	Thyristor	Q3
CS22-12IO1M	TO-220F	Thyristor	Q3
DFE10I600PM	TO-220F	Diode	Q3
DHG10I1200PM	TO-220F	Diode	Q3
DHG10I600PM	TO-220F	Diode	Q3
DHG5I600PM	TO-220F	Diode	Q3
DLA10IM800UC	TO-252	Diode	Q2

DLA5P800UC	TO-252	Diode	Q2
DMA10P1200UZ-TRL	TO-252HV	Diode	Q2
DPG10I200PM	TO-220F	Diode	Q3
DPG10I400PM	TO-220F	Diode	Q3
DPG10IM300UC	TO-252	Diode	Q2
DPG15I400PM	TO-220F	Diode	Q3
DPG20C200PN	TO-220F	Diode	Q3
DPG20C300PN	TO-220F	Diode	Q3
DPG20C400PN	TO-220F	Diode	Q3
DSA10C150UC	TO-252	Diode	Q2
DSA10I100PM	TO-220F	Diode	Q3
DSA10IM100UC	TO-252	Diode	Q2
DSA15IM200UC	TO-252	Diode	Q2
DSA20C100PN	TO-220F	Diode	Q3
DSA20C150PN	TO-220F	Diode	Q3
DSA20C60PN	TO-220F	Diode	Q3
DSA30C100PN	TO-220F	Diode	Q3
DSB10I45PM	TO-220F	Diode	Q3
DSB15IM30UC	TO-252	Diode	Q2
DSB20C60PN	TO-220F	Diode	Q3
DSEC120-12AK	TO-264	Diode	Q4
DSEP6-06AS	TO-252	Diode	Q2
DSS6-0025BS	TO-252	Diode	Q2
DSS6-0045AS	TO-252	Diode	Q2
DSS6-015AS	TO-252	Diode	Q2
IXA4I1200UC	TO-252	IGBT	Q3
IXA4IF1200UC	TO-252	IGBT	Q3
IXCY10M45S	TO-252	MOSFET	Q3
IXCY10M90S	TO-252	MOSFET	Q3
IXCY10M90S-TRL	TO-252	MOSFET	Q3
IXFK100N65X2	TO-264	MOSFET	Q4
IXFK27N80Q	TO-264	MOSFET	Q4
IXFK34N80	TO-264	MOSFET	Q4
IXFK52N100X	TO-264	MOSFET	Q4
IXFK66N85X	TO-264	MOSFET	Q4
IXFQ60N25X3	TO-3P	MOSFET	Q3
IXFQ72N30X3	TO-3P	MOSFET	Q3
IXFQ8N85X	TO-3P	MOSFET	Q3
IXFQ90N20X3	TO-3P	MOSFET	Q3
IXFY36N20X3	TO-252	MOSFET	Q3
IXFY4N85X	TO-252	MOSFET	Q3
IXGQ85N33PCD1	TO-3P	IGBT	Q3
IXTQ130N10T	TO-3P	MOSFET	Q3
IXTQ14N60P	TO-3P	MOSFET	Q3
IXTQ26P20P	TO-3P	MOSFET	Q3
IXTQ36N50P	TO-3P	MOSFET	Q3
IXTQ44P15T	TO-3P	MOSFET	Q3
IXTQ460P2	TO-3P	MOSFET	Q3
IXTQ480P2	TO-3P	MOSFET	Q3

IXTQ50N25T	TO-3P	MOSFET	Q3
IXTQ52N30P	TO-3P	MOSFET	Q3
IXTQ60N20T	TO-3P	MOSFET	Q3
IXTQ64N25P	TO-3P	MOSFET	Q3
IXTQ69N30P	TO-3P	MOSFET	Q3
IXTQ76N25T	TO-3P	MOSFET	Q3
IXTQ82N25P	TO-3P	MOSFET	Q3
IXTQ96N15P	TO-3P	MOSFET	Q3
IXTQ96N20P	TO-3P	MOSFET	Q3
IXTY01N100	TO-252	MOSFET	Q3
IXTY01N100D	TO-252	MOSFET	Q3
IXTY01N100D-TRL	TO-252	MOSFET	Q3
IXTY01N100-TRL	TO-252	MOSFET	Q3
IXTY02N120P	TO-252	MOSFET	Q3
IXTY08N100D2	TO-252	MOSFET	Q3
IXTY08N50D2-TRL	TO-252	MOSFET	Q3
IXTY18P10T-TRL	TO-252	MOSFET	Q3
IXTY1R6N100D2	TO-252	MOSFET	Q3
IXTY1R6N100D2-TRL	TO-252	MOSFET	Q3
IXTY1R6N50D2	TO-252	MOSFET	Q3
IXTY1R6N50D2-TRL	TO-252	MOSFET	Q3
IXTY26P10T	TO-252	MOSFET	Q3
IXTY44N10T-TRL	TO-252	MOSFET	Q3
IXTY4N65X2-TRL	TO-252	MOSFET	Q3