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8755 W. Higgins Road
Suite 500
Chicago, Illinois USA 60631

April 28, 2020

To whom it may concern:

This is to notify you that Littelfuse will change the Tube packing quantity for Thyristor TO-220(Isolated and Non-Isolated) and TO-263(D^2-PAK) products from 500pcs/box to 1000pcs/box. Detail affected part number list refer to attachment.

There will be no change on product fit, form, and function. Tube packing quantity change for Thyristor TO-220(Isolated and Non-Isolated) and TO-263(D^2-PAK) physical appreance as below.

Accordingly, MOQ will be changed from 500pcs to 1000pcs, to align with the Tube packing quantity change as well.

Original 500pcs/box	**New 1000pcs/box**
	

Product Form, fit, function changes: None
Product Part number changes: None
Change Effective date: May-28th, 2020
Replacement products: N/A
Last time buy: N/A

If you have any questions or concerns, please contact our local Sales team.

Zhiwei Wang
Global Product Marketing Manager
Semiconductor Business Unit, Wuxi, China
+86 510 85277701 - 7927
zwang@littelfuse.com

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PCN Report

Prepared By : Lei Wu, Product Engineer
Date : April 20th, 2020
Device : Thyristor TO-220/TO-263 Tube packing Product Series
Revision : B

1.0 Objective:

The purpose of this project is to qualify the change of Tube packing quantity for Thyristor TO-220(Isolated and Non-Isolated) and TO-263(D^2-PAK) products.

2.0 Applicable Devices:

Thyristor TO-220(Isolated and Non-Isolated) and TO-263(D^2-PAK) Tube Packing Product Series

3.0 Packing Method:

Tube packing quantity will be changed, change it from 500pcs/box to 1000pcs/Box.

Original	New
	

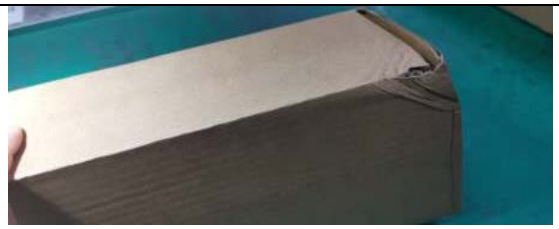
4.0 Physical Differences/Changes:

There is no change in mechanical specification and package outline dimension (POD).

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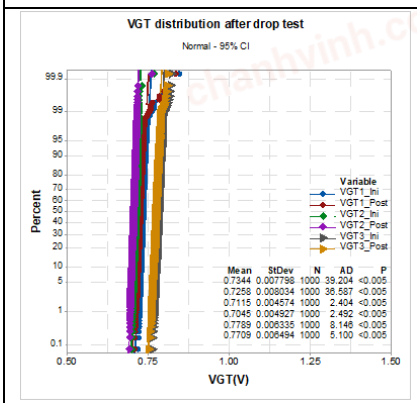
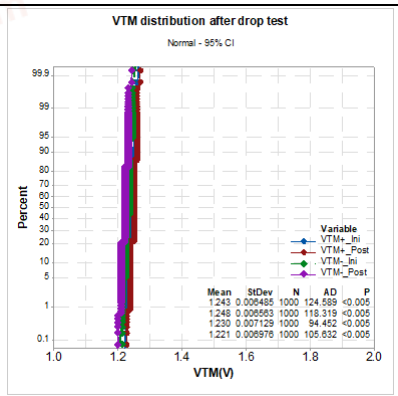
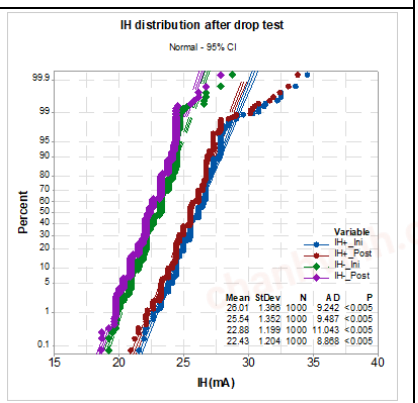
5.0 Reliability Test Results Summary:

Test Category	Step	Impact Surface	Sample Qty	Reference	Contents/Conditions	Result Summary
Drop test	1	Corner (1-4-6)	1000	ISTA-1A-2001	Weight<10KG, Drop height:76cm	No failure
	2	Edge (1-4)				
	3	Edge (1-6)				
	4	Edge (4-6)				
	5	Flat (Left)				
	6	Flat (Right)				
	7	Flat (Rear)				
	8	Flat (Front)				
	9	Flat (Top)				
	10	Flat (Bottom)				

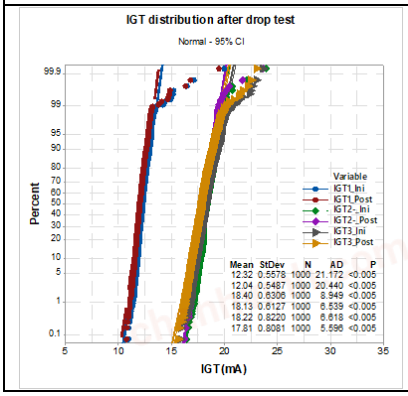
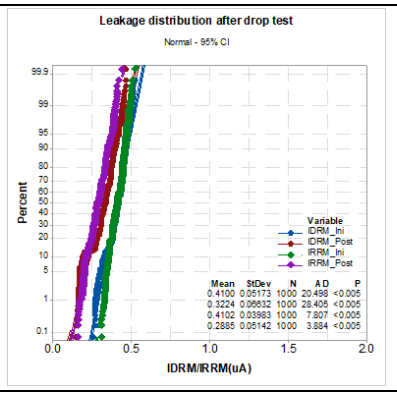
Before Drop test	After Drop test
	
	

6.0 Electrical Characteristic Summary:

There is no change in electrical characteristics after drop test.

VGT distribution	VTM distribution	IH distribution
		

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IGT distribution	I_{DRM}/I_{RRM} distribution
	

7.0 Changed Part Identification:

NA

8.0 Recommendations & Conclusions:

Based on the test results, it is determined that the new carton packing quantity is qualified and certified for Littelfuse TO-220(Isolated and Non-Isolated) and TO-263(D^2-PAK) Tube Packing Product Series.

9.0 Approvals:

Lei Wu
Thyristor Product Engineer
Littelfuse, Inc.

Peter Liu
Sr. Product Engineer Manager
Littelfuse, Inc.

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Appendix

Affected part number list

2N6344AG	MAC16MG	Q4016LH4TP	Q8012NH2TP	SJ4012L1TP
2N6344G	MAC16NG	Q4016LH6TP	Q8012NH5TP	SJ4012L2TP
2N6348AG	MAC210A10G	Q4016NH2TP	Q8012RH2TP	SJ4012LTP
2N6349AG	MAC210A8G	Q4016NH3TP	Q8012RH5TP	SJ4012N1TP
2N6394G	MAC212A10G	Q4016NH4TP	Q8015L5TP	SJ4012N2TP
2N6394TG	MAC212A8G	Q4016NH6TP	Q8015N5TP	SJ4012NTP
2N6395G	MAC228A10G	Q4016RH2TP	Q8015R5TP	SJ4012R1TP
2N6397G	MAC228A4G	Q4016RH3TP	Q8016LH2TP	SJ4012R2TP
2N6397TG	MAC228A6G	Q4016RH4TP	Q8016LH3TP	SJ4012RTP
2N6399G	MAC228A6TG	Q4016RH6TP	Q8016LH4TP	SJ4016L1TP
2N6399TG	MAC228A8G	Q4025L5TP	Q8016LH6TP	SJ4016L2TP
2N6400G	MAC228A8TG	Q4025L6BTP	Q8016NH2TP	SJ4016LTP
2N6401G	MAC3030-8G	Q4025L6TP	Q8016NH3TP	SJ4016N1TP
2N6402G	MAC8DG	Q4025LH5TP	Q8016NH4TP	SJ4016N2TP
2N6403G	MAC8MG	Q4025N5TP	Q8016NH6TP	SJ4016NTP
2N6403TG	MAC8NG	Q4025NH5TP	Q8016RH2TP	SJ4016R1TP
2N6404G	MAC8SDG	Q4025NH6TP	Q8016RH3TP	SJ4016R2TP
2N6405G	MAC8SMG	Q4025R5TP	Q8016RH4TP	SJ4016RTP
2N6504G	MAC8SNG	Q4025R6TP	Q8016RH6TP	SJ4020L1ATP
2N6505G	MAC9DG	Q4025RH5TP	Q8025L5TP	SJ4020L1TP
2N6505TG	MAC9NG	Q4030LH5TP	Q8025L6TP	SJ4020L2ATP
2N6507G	MCR12DG	Q4035NH5TP	Q8025LH5TP	SJ4020L2TP
2N6507TG	MCR12MG	Q4035RH5TP	Q8025N5TP	SJ4020LATP
2N6508G	MCR12NG	Q5025LXTP	Q8025NH5TP	SJ4020LTP
2N6508TG	MCR16NG	Q563Q2006L5TP	Q8025NH6TP	SJ4020N1ATP
2N6509G	MCR218-2G	Q6004L3TP	Q8025R5TP	SJ4020N1TP
2N6509TG	MCR218-4G	Q6004L4TP	Q8025R6TP	SJ4020N2ATP
BTA08-600BW3G	MCR218-6G	Q6004LTTP	Q8025RH5TP	SJ4020N2TP
BTA08-600CW3G	MCR25DG	Q6004R3TP	Q875Q4015LTTP	SJ4020NATP
BTA08-800BW3G	MCR25MG	Q6004R4TP	Q882Q4025LXTP	SJ4020NTP
BTA08-800CW3G	MCR25NG	Q6006L4TP	Q889Q2015L6TP	SJ4020R1ATP
BTA08-800CW3LFG	MCR310-10G	Q6006L5TP	Q955Q6010L5TP	SJ4020R1TP
BTA12-600BW3G	MCR68-2G	Q6006LH3TP	QJ4016LH2TP	SJ4020R2ATP
BTA12-600BW3GF	MCR69-2G	Q6006LH4TP	QJ4016LH3TP	SJ4020R2TP
BTA12-600CW3G	MCR69-3G	Q6006LTHTP	QJ4016LH4TP	SJ4020RATP
BTA12-800BW3G	MCR72-3G	Q6006LTTP	QJ4016LH6TP	SJ4020RTP
BTA12-800CW3G	MCR72-6G	Q6006N4TP	QJ4016RH2TP	SJ4025L1ATP
BTA16-600BW3G	MCR72-6TG	Q6006N5TP	QJ4016RH3TP	SJ4025L1TP
BTA16-600CW3G	MCR72-8G	Q6006NH4TP	QJ4016RH4TP	SJ4025L2ATP
BTA16-600SW3G	MCR72-8TG	Q6006R4TP	QJ4016RH6TP	SJ4025L2TP
BTA16-800BW3G	MCR8NG	Q6006R5TP	QJ4025LH5TP	SJ4025LATP
BTA16-800CW3G	MCR8SDG	Q6006RH3TP	QJ4025LH6TP	SJ4025LTP
BTA16-800SW3G	MCR8SMG	Q6006RH4TP	QJ4025RH5TP	S6008NTP
BTA25-600CW3G	MCR8SNG	Q6008L4TP	QJ4025RH6TP	S6008RS2TP
BTA25-800CW3G	Q1066Q4008L4TP	Q6008L5TP	QJ6016LH2TP	S6008RS3TP
BTA25H-600CW3G	Q1069Q4008L4TP	Q6008LH1LEDTP	QJ6016LH3TP	S6008RTP

BTA30-600CW3G	Q1070Q4015L5TP	Q6008LH4TP	QJ6016LH4TP	S6010LS2TP
BTB08-600BW3G	Q1081Q2008L5TP	Q6008LTH1LEDTP	QJ6016LH6TP	S6010LS3TP
BTB08-600CW3G	Q1082Q2010L5TP	Q6008LTHTP	QJ6016RH2TP	S6010LTP
BTB08-800BW3G	Q1111Q6008L4TP	Q6008LTTP	QJ6016RH3TP	S6010NS2TP
BTB08-800CW3G	Q1112Q8008L5TP	Q6008N4TP	QJ6016RH4TP	S6010NS3TP
BTB12-600BW3G	Q1113Q6025L6BTP	Q6008N5TP	QJ6016RH6TP	S6010NTP
BTB12-600CW3G	Q1162Q4010L4TP	Q6008NH1LEDTP	QJ6025LH5TP	S6010RS2TP
BTB12-600TW3G	Q1174Q5025LXTP	Q6008NH3TP	QJ6025LH6TP	S6010RS3TP
BTB12-800BW3G	Q1208Q4008L4TP	Q6008NH4TP	QJ6025RH5TP	S6010RTP
BTB12-800CW3G	Q1248Q4008LTTP	Q6008R4TP	QJ6025RH6TP	S6012LTP
BTB12H-600CW3G	Q1257Q6008RH4TP	Q6008R5TP	QJ6030LH4TP	S6012NTP
BTB16-600BW3G	Q1263Q4008LTTP	Q6008RH1LEDTP	QJ8012LH4TP	S6012RTP
BTB16-600CW3G	Q1265Q4008L4TP	Q6008RH3TP	QJ8012LH5TP	S6015LTP
BTB16-800BW3G	Q1266Q4025L6TP	Q6008RH4TP	QJ8012RH4TP	S6016NTP
BTB16-800CW3G	Q1275L6008L6LBTP	Q6010L4TP	QJ8012RH5TP	S6016RTP
BTB16H-600BW3G	Q1308Q4010L5TP	Q6010L5TP	QJ8016LH3TP	S6020LTP
C122F1G	Q1334Q2016RH4TP	Q6010LH5TP	QJ8016LH4TP	S6025LTP
CQ104Q2004L4TP	Q1335Q4008LH4TP	Q6010LTHTP	QJ8016LH5TP	S6025NTP
CQ110Q2015L6TP	Q1336Q4030LH5TP	Q6010LTTP	QJ8016RH3TP	S6025RTP
D110D8020LLBTP	Q1341Q6008LH4TP	Q6010N4TP	QJ8016RH4TP	S6040NTP
D113D4020LTP	Q1342Q6030LH5TP	Q6010N5TP	QJ8016RH5TP	S6040RTP
D116D4015LTP	Q1349Q4008L5TP	Q6010NH5TP	QJ8025LH4TP	S6055NTP
D117D8015LTP	Q1350Q6008L5TP	Q6010R4TP	QJ8025LH5TP	S6055RTP
D118D4025LTP	Q1351Q4010L5TP	Q6010R5TP	QJ8025RH4TP	S619S4010LTP
D119D8025LTP	Q1352Q6010L5TP	Q6010RH5TP	QJ8025RH5TP	S665S4008LTP
D125D4025LLBTP	Q1353Q4015L6TP	Q6012LH1LEDTP	QJ8030LH4TP	S667S6008RTP
D129D8010LTP	Q1359Q6030LH5TP	Q6012LH2TP	QK004L4TP	S677S4020LTP
D130D6015NATP	Q1371Q4010LTTP	Q6012LH5TP	QK004R4TP	S678S8020LTP
D4015LTP	Q1372Q4015LTTP	Q6012LTH1LEDTP	QK006L5TP	S709S2008LS2TP
D4020LTP	Q1374L6004L3TP	Q6012NH1LEDTP	QK006LH4TP	S723AS6006LS3TP
D4025LTP	Q1376Q4008L4TP	Q6012NH2TP	QK006N5TP	S726S8025LTP
D6015LTP	Q1379Q4004LTTP	Q6012NH5TP	QK006NH4TP	S748S8010LTP
D6020LTP	Q1395Q4004R4TP	Q6012RH1LEDTP	QK006R5TP	S749S8015LTP
D6025LTP	Q1403L6004R5TP	Q6012RH2TP	QK006RH4TP	S751S4025LTP
D8010LTP	Q1407Q6008LTHLEDTP	Q6012RH5TP	QK008L5TP	S752S8025LTP
D8015LTP	Q1408Q6012LTHLEDTP	Q6015L5TP	QK008LH4TP	S753S0508RTP
D8020LTP	Q1409Q4008LTTP	Q6015L6TP	QK008N5TP	S758S4012LTP
D8025LTP	Q1410Q8025R6TP	Q6015LTHTP	QK008NH4TP	S778S6008LS3LBTP
DK015LTP	Q1413Q6030LH3TP	Q6015LTTP	QK008R5TP	S798S8025LTP
DK020LTP	Q1415Q6016LH2TP	Q6015N5TP	QK008RH4TP	S8006LTP
DK025LTP	Q1423Q4010L4TP	Q6015R5TP	QK010L4TP	S8006NTP
HQ6025LH5TP	Q1425Q8025LH5TP	Q6016LH1LEDTP	QK010L5TP	S8006RTP
HQ6025NH5TP	Q1435Q6016RH6TP	Q6016LH2TP	QK010LH5TP	S8008LTP
HQ6025RH5TP	Q1436Q8016RH4TP	Q6016LH3TP	QK010N4TP	S8008NTP

HS4040RAQ3TP	Q1437Q8025RH5TP	Q6016LH4TP	QK010N5TP	S8008RTP
HS4040RAQTP	Q4004L3TP	Q6016LH651TP	QK010NH5TP	S8010LTP
L4004L3TP	Q4004L4TP	Q6016NH2TP	QK010R4TP	S8010NTP
L4004L5TP	Q4004LTTP	Q6016NH3TP	QK010R5TP	S8010RTP
L4004L6TP	Q4004R3TP	Q6016NH4TP	QK010RH5TP	S8012NTP
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L4004R6TP	Q4006LTHTP	Q6016RH4TP	QK012NH5TP	S8016RATP
L4004R8TP	Q4006LTTP	Q6016RH6TP	QK012RH2TP	S8016RTP
L4006L5TP	Q4006N4TP	Q6025L5TP	QK012RH5TP	S801S6008LS3TP
L4006L6TP	Q4006N5TP	Q6025L6TP	QK015L5TP	S8020LTP
L4006L8TP	Q4006NH4TP	Q6025LH5TP	QK015N5TP	S8025LTP
L4008L6TP	Q4006R4TP	Q6025N5TP	QK015R5TP	S8025NTP
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L6004R6TP	Q4008N4TP	Q6035NH5TP	QK016RH2TP	S844S8010RTP
L6004R8TP	Q4008N5TP	Q6035RH5TP	QK016RH3TP	S845S8010RTP
L6006L5TP	Q4008NH3TP	Q685Q2008LTTP	QK016RH4TP	S859S6008LTP
L6006L6TP	Q4008NH4TP	Q697Q4010L5TP	QK016RH6TP	S895S6008RS2TP
L6006L8TP	Q4008R4TP	Q753Q4025L6TP	QK025L5TP	S913S4015LTP
L6006R5TP	Q4008R5TP	Q8004L3TP	QK025L6TP	S939S4006LS2TP
L6006R6TP	Q4008RH3TP	Q8004L4TP	QK025N5TP	S946S4012RTP
L6008L6TP	Q4008RH4TP	Q8004R3TP	QK025NH6TP	S955S4006LS2TP
L6008L8TP	Q4010L4TP	Q8004R4TP	QK025R5TP	S962S6006LS3TP
L6008R6TP	Q4010L5TP	Q8006L5TP	QK025R6TP	S963S6016LTP
L6008R8TP	Q4010LH5TP	Q8006LH4TP	S382S4015LTP	S964S6040LTP
MAC12DG	Q4010LTHTP	Q8006N5TP	S4006LS2TP	S974S4012RTP
MAC12HCDG	Q4010LTTP	Q8006NH4TP	S4006LS3TP	S976S4025RTP
MAC12HCMG	Q4010N4TP	Q8006R5TP	S4006LTP	S979S4040RTP
MAC12HCNG	S4010NS2TP	Q8006RH4TP	S980S4040RQ2TP	SRR6012R1TP
MAC12MG	S4010NS3TP	Q8008L5TP	S981S4040RQ3TP	SRR6012RTP
MAC12NG	S4010NTP	Q8008LH4TP	S982S6025RTP	SRR6016RTP
MAC12SMG	S4010RS2TP	Q8008N5TP	S990SJ6012L1TP	SRR6020LTP
MAC12SNG	S4010RS3TP	Q8008NH4TP	S991S6025LTP	SRR6020NTP
MAC15-10G	S4010RTP	Q8008R5TP	S992SJ6025LTP	SRR6020RTP
MAC15-8G	S4012LTP	Q8008RH4TP	S993S6015LTP	SRUK208RTP
MAC15A10G	S4012NTP	Q8010L4TP	S994SJ6016L1TP	SV6012L1QTP
MAC15A6G	S4012RTP	Q8010L5TP	S995S6020LTP	SV6012L1TP
MAC15A8G	S4015LTP	Q8010LH5TP	S996SJ6020L1TP	SV6012L2QTP

MAC15MG	S4016NTP	Q8010N4TP	S997SJ6032L2TP	SV6012L2TP
MAC15NG	S4016RTP	Q8010N5TP	S998SJ6040L2TP	SV6012N1QTP
MAC16CMG	S4020LTP	Q8010NH5TP	SAC187G	SV6012N1TP
MAC16CNG	S4025LTP	Q8010R4TP	SAC319MTG	SV6012N2QTP
MAC16DG	S4025NTP	Q8010R5TP	SAC320MTG	SV6012N2TP
MAC16HCDG	S4025RTP	Q8010RH5TP	SAC396-7G	SV6012R1QTP
MAC16HCMG	S403S4010LTP	Q8012LH2TP	SAC847-8LFBJG	SV6012R1TP
MAC16HCNG	S4040NTP	Q8012LH5TP	SCR888LFDZG	SV6012R2QTP
Q4010N5TP	S4040RQ2TP	S4006NS2TP	SK010LTP	SV6012R2TP
Q4010NH5TP	S4040RQ3TP	S4006NS3TP	SK010NTP	SV6016L1QTP
Q4010R4TP	S4040RQTP	S4006NTP	SK010RTP	SV6016L1TP
Q4010R5TP	S4040RTP	S4006RS2TP	SK012NTP	SV6016L2QTP
Q4010RH5TP	S4055NTP	S4006RS3TP	SK012RTP	SV6016L2TP
Q4012LH2TP	S4055RTP	S4006RTP	SK015LTP	SV6016N1QTP
Q4012LH5TP	S472S4008LTP	S4008LS2TP	SV6020R2TP	SV6016N1TP
Q4012NH2TP	S512S0540RLBTP	S4008LS3TP	SV6025L1QTP	SV6016N2QTP
Q4012NH5TP	S556S2025RTP	S4008LTP	SV6025L1TP	SV6016N2TP
Q4012RH2TP	S593S8008RTP	S4008NS2TP	SV6025L2QTP	SV6016R1QTP
Q4012RH5TP	S6006LS2TP	S4008NS3TP	SV6025L2TP	SV6016R1TP
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Q4015LTHTP	S6006LTP	SK016NTP	SV6025N1TP	SV6016R2TP
Q4015LTTP	S6006NS2TP	SK016RTP	SV6025N2QTP	SV6020L1QTP
Q4015N5TP	S6006NS3TP	SK020LTP	SV6025N2TP	SV6020L1TP
Q4015R5TP	S6006NTP	SK025LTP	SV6025R1QTP	SV6020L2QTP
Q4016LH2TP	S6006RS2TP	SK025NTP	SV6025R1TP	SV6020L2TP
Q4016LH3TP	S6006RS3TP	SK025RTP	SV6025R2QTP	SV6020N1QTP
S4008RS2TP	S6006RTP	SK040NTP	SV6025R2TP	SV6020N1TP
S4008RS3TP	S6008LS2TP	SK040RTP	SYC17143LFBPG	SV6020N2QTP
S4008RTP	S6008LS3TP	SK055NTP	T2500DG	SV6020N2TP
S4010LS2TP	S6008LTP	SK055RTP	T2800DG	SV6020R1QTP
S4010LS3TP	S6008NS2TP	SRR6012L1TP	TPA0233G	SV6020R1TP
S4010LTP	S6008NS3TP	SRR6012LTP	SJ6025R1ATP	SV6020R2QTP
SJ4025N1ATP	SJ6020R1ATP	SJ6012R1TP	SJ6025R1TP	SJ6020N1ATP
SJ4025N1TP	SJ6020R1TP	SJ6012R2TP	SJ6025R2ATP	SJ6020N1TP
SJ4025N2ATP	SJ6020R2ATP	SJ6012RTP	SJ6025R2TP	SJ6020N2ATP
SJ4025N2TP	SJ6020R2TP	SJ6016L1TP	SJ6025RATP	SJ6020N2TP
SJ4025NATP	SJ6020RATP	SJ6016L2TP	SJ6025RTP	SJ6020NATP
SJ4025NTP	SJ6020RTP	SJ6016LTP	SJ6032L2TP	SJ6020NTP
SJ4025R1ATP	SJ6025L1ATP	SJ6016N1TP	SJ6032LTP	SK006LTP
SJ4025R1TP	SJ6025L1TP	SJ6016N2TP	SJ6032N2TP	SK006NTP
SJ4025R2ATP	SJ6025L2ATP	SJ6016NTP	SJ6032NTP	SK006RTP
SJ4025R2TP	SJ6025L2TP	SJ6016R1TP	SJ6032R2TP	SK008LTP
SJ4025RATP	SJ6025LATP	SJ6016R2TP	SJ6032RTP	SK008NTP
SJ4025RTP	SJ6025LTP	SJ6016RTP	SJ6040L2TP	SK008RTP
SJ6012L1TP	SJ6025N1ATP	SJ6020L1ATP	SJ6040LTP	SJ6012N1TP

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SJ6012L2TP	SJ6025N1TP	SJ6020L1TP	SJ6040N2TP	SJ6012N2TP
SJ6012LTP	SJ6025N2ATP	SJ6020L2ATP	SJ6040NTP	SJ6012NTP
SJ6025NTP	SJ6025N2TP	SJ6020L2TP	SJ6040R2TP	MAC9MG
SJ6020LTP	SJ6025NATP	SJ6020LATP	SJ6040RTP	