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OS-IN-2020-004-A

**Correction of characteristic curves for PowerSIDELED
and SYNIOS P2720 with 500µm TF Chip**

Customer information package

OS QM CQM A | 17.02.2020

Light is OSRAM

OSRAM
Opto Semiconductors

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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change

Relevant corrections of product data sheet diagrams are depicted on the following pages.

Other diagrams with only marginal changes which are considered as standard production spread are not depicted in this presentation.

See parameter list in table below.

Parameter list for diagrams with only marginal changes

Relative Spectral Emission - $V(\lambda)$ = Standard eye response curve

Radiation Characteristics

Furthermore, where defined, comments on minimum current in DC derating diagrams have been deleted. The information on minimum allowed current is defined in product data sheet under section operating temperature range.

For details please refer to new product data sheets.

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List of affected products

Power SIDELED	SYNIOS P2720
LA B6SP	KR DMLN31.23
LR B6SP	KS DMLN31.23
LS B6SP	

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Description of change

Item	Current status	New status
Rth_real typ (SYNIOS)	30 K/W	17 K/W
Rth_real max (SYNIOS)	40 K/W	23 K/W
Rth_real typ (Power SIDELED)	53 K/W	40 K/W
Rth_real max (Power SIDELED)	62 K/W	50 K/W
Efficiency (SYNIOS)	30%	40%
Efficiency (Power SIDELED)	34%	40%

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Up-dated Datasheet Version

Product type	Data sheet version before PCN	Data sheet version after PCN
LA B6SP	1.2	≥ 1.3
LR B6SP	1.2	≥ 1.3
LS B6SP	1.2	≥ 1.3
KR DMLN31.23	1.3	≥ 1.4
KS DMLN31.23	1.3	≥ 1.4

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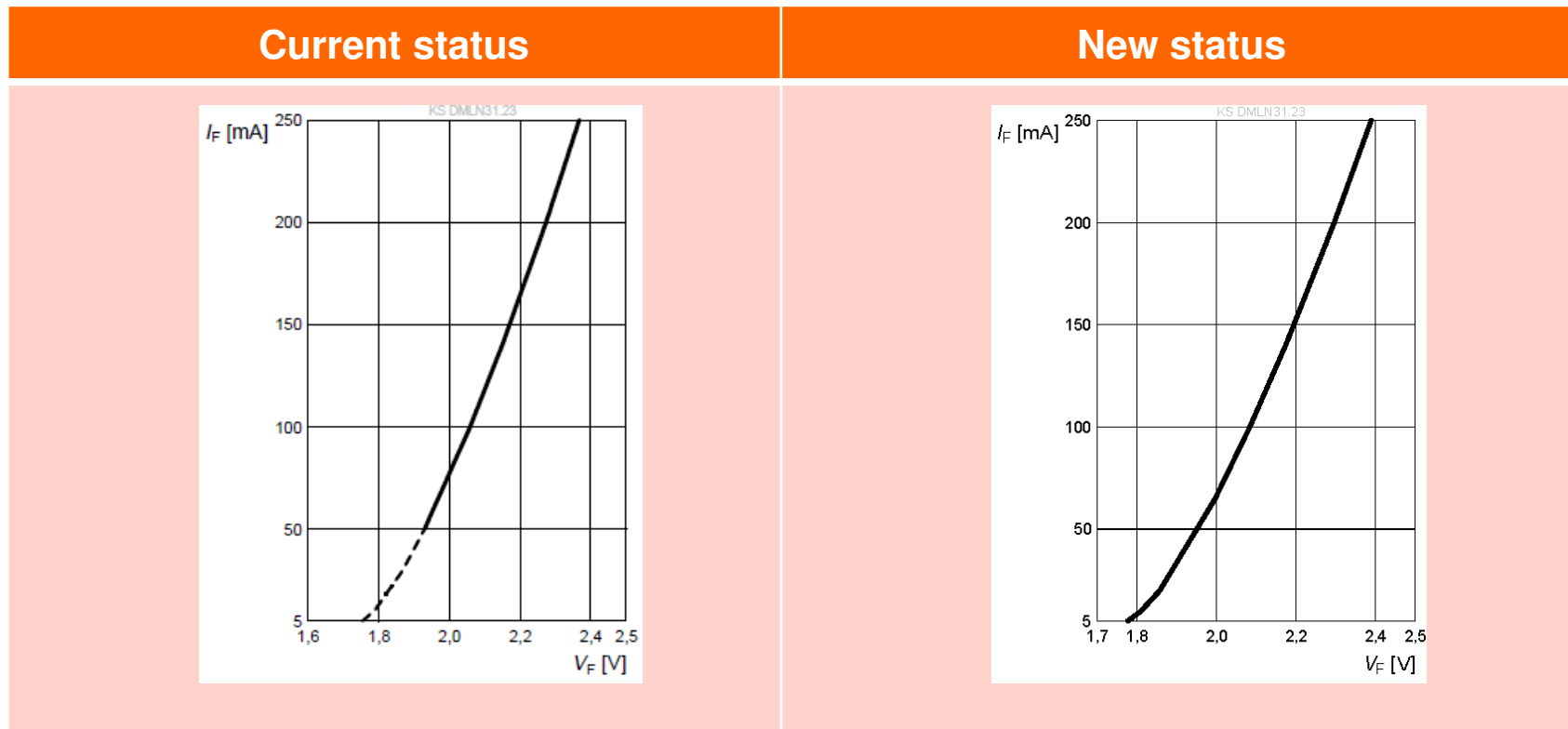
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for SYNIOS P2720 Superred - KS DMLN31.23):

Forward Current

$I_F = f(V_F)$; $T_S = 25\text{ °C}$



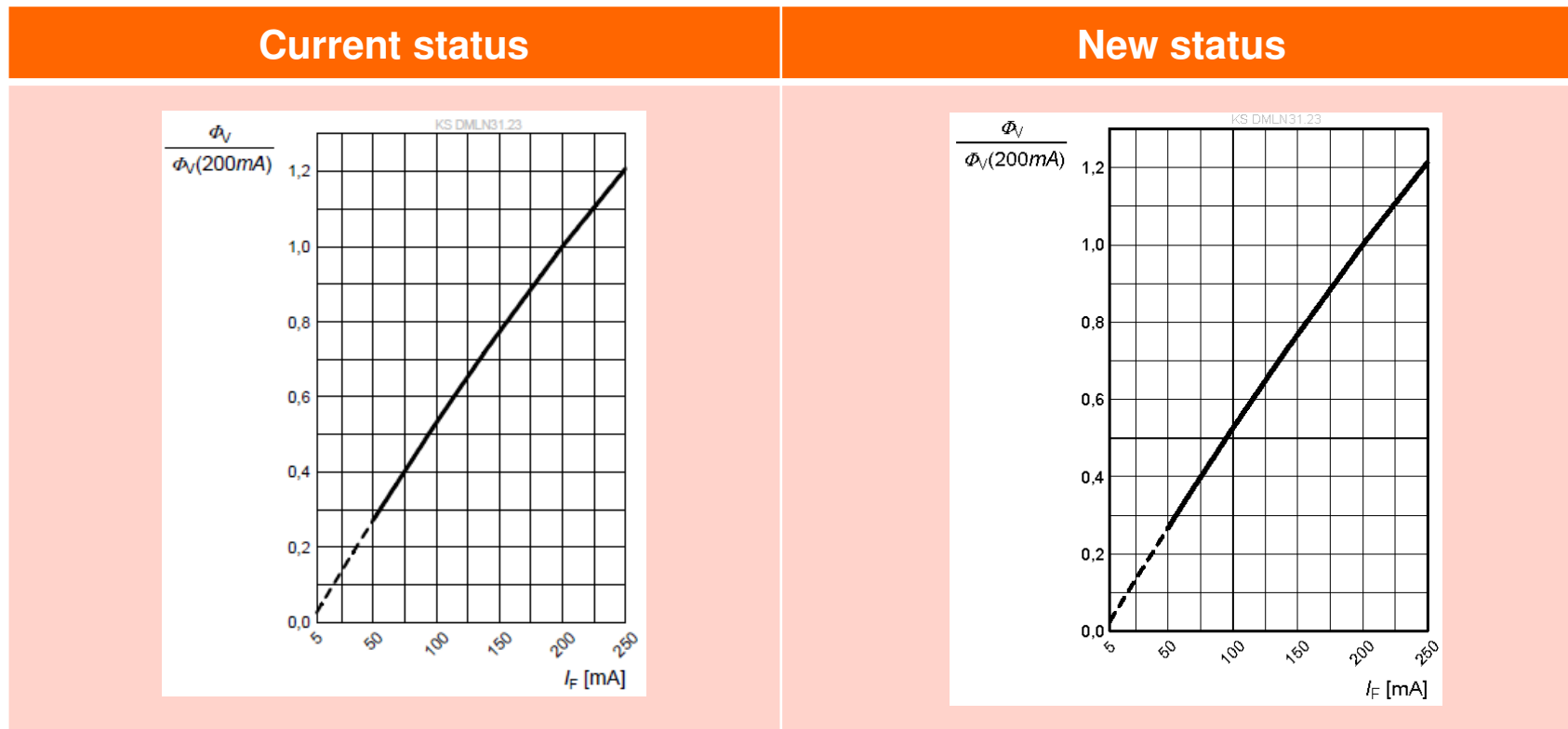
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for SYNIOS P2720 Superred - KS DMLN31.23):
Relative Luminous Flux

$$\Phi_V / \Phi_V(200 \text{ mA}) = f(I_F); \text{ TS} = 25 \text{ °C}$$



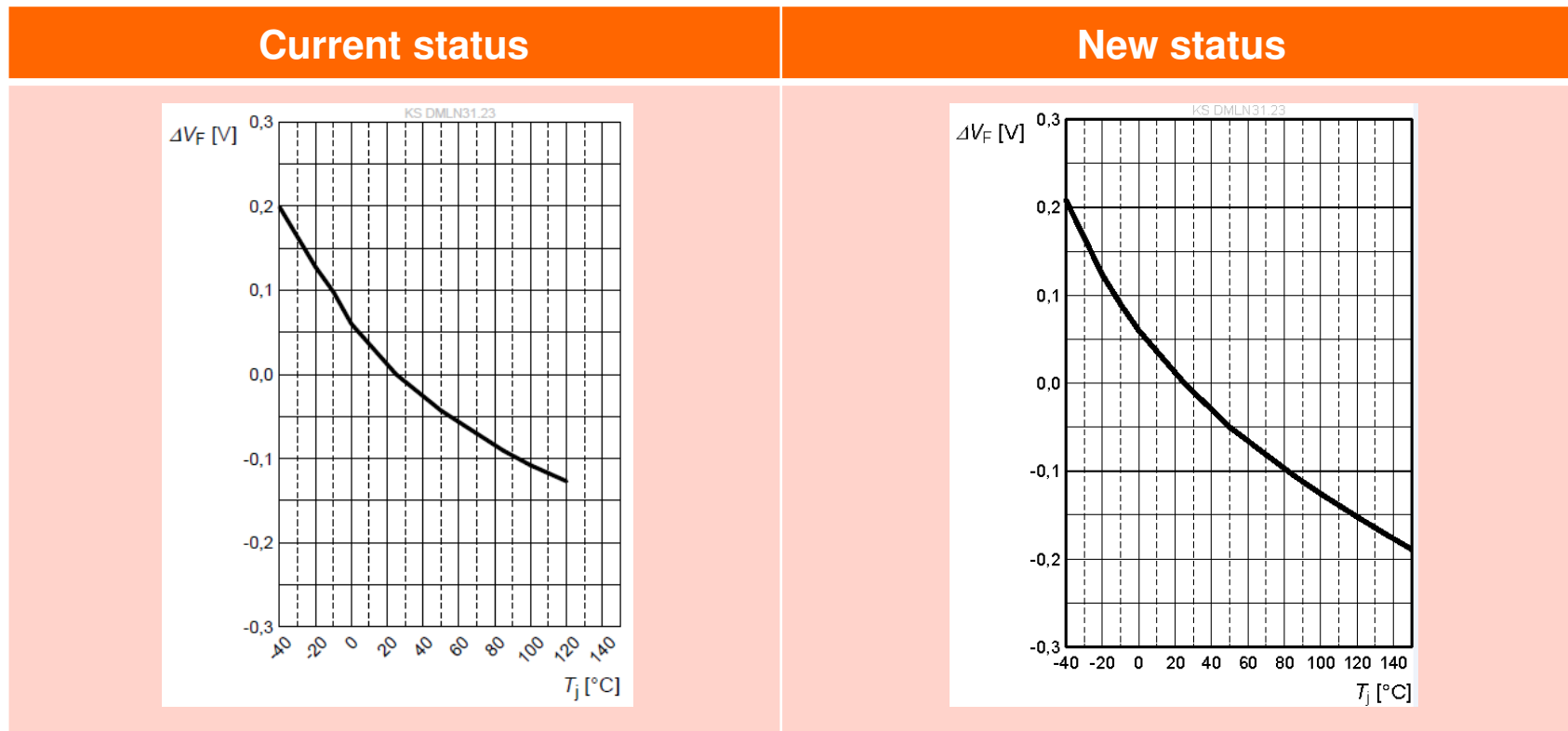
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for SYNIOS P2720 Superred - KS DMLN31.23):
Relative Forward Voltage

$$\Delta V_F = V_F - V_F(25\text{ °C}) = f(T_j); I_F = 200\text{ mA}$$



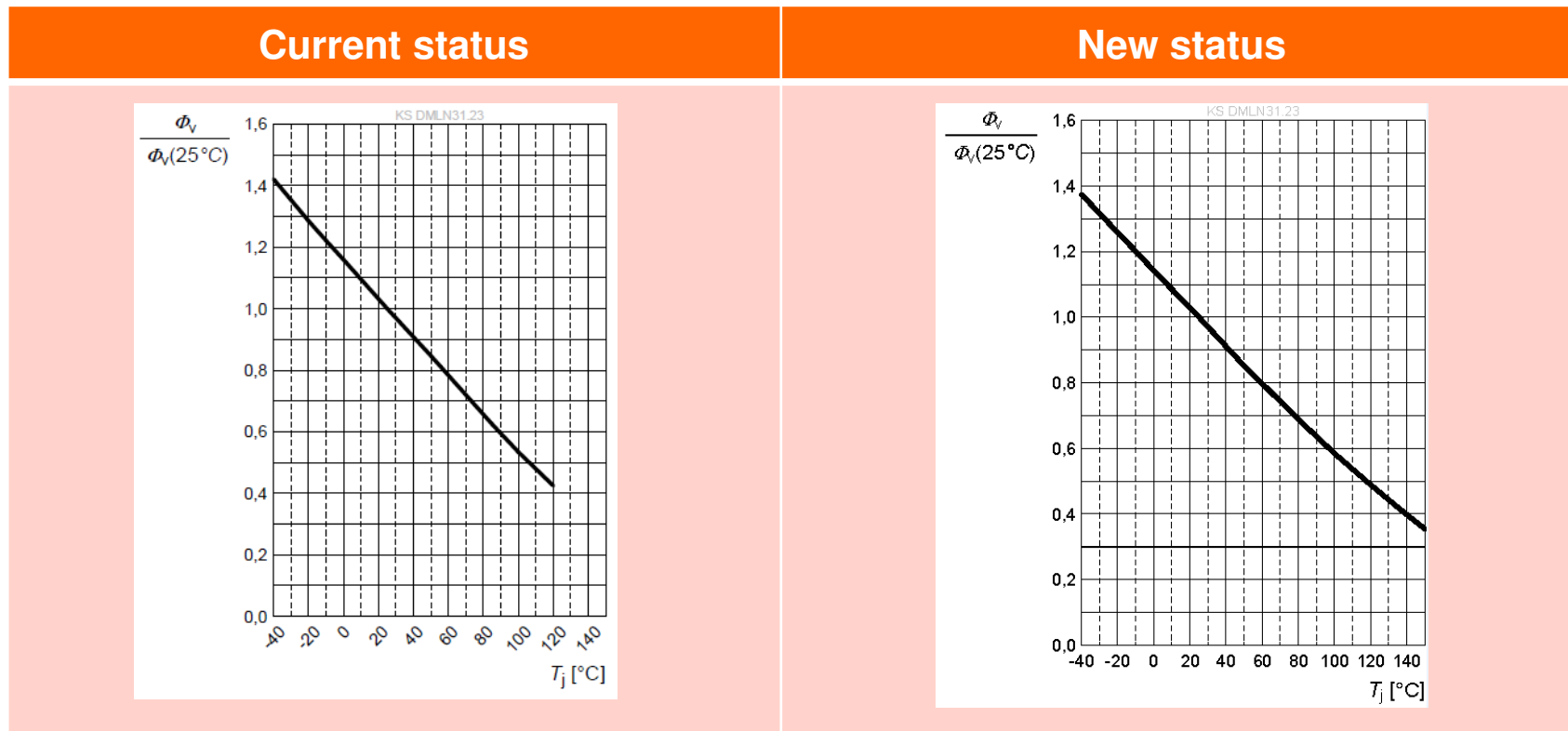
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Description of change (for SYNIOS P2720 Superred - KS DMLN31.23):
Relative Luminous Flux

$$\Phi_V/\Phi_V(25\text{ °C}) = f(T_j); IF = 200\text{ mA}$$



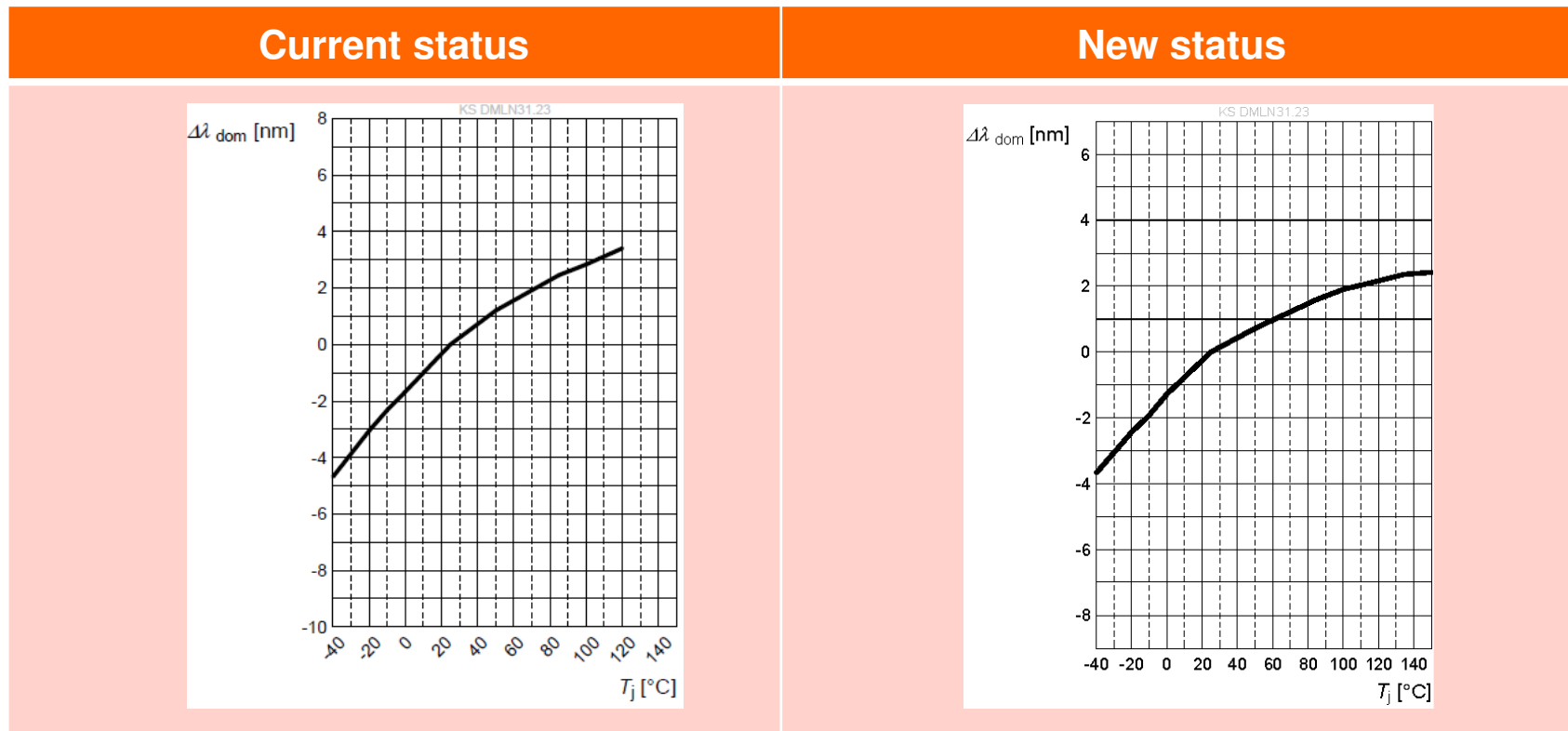
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for SYNIOS P2720 Superred - KS DMLN31.23):
Dominant Wavelength

$$\Delta\lambda_{dom} = \lambda_{dom} - \lambda_{dom}(25\text{ °C}) = f(T_j); IF = 200\text{ mA}$$



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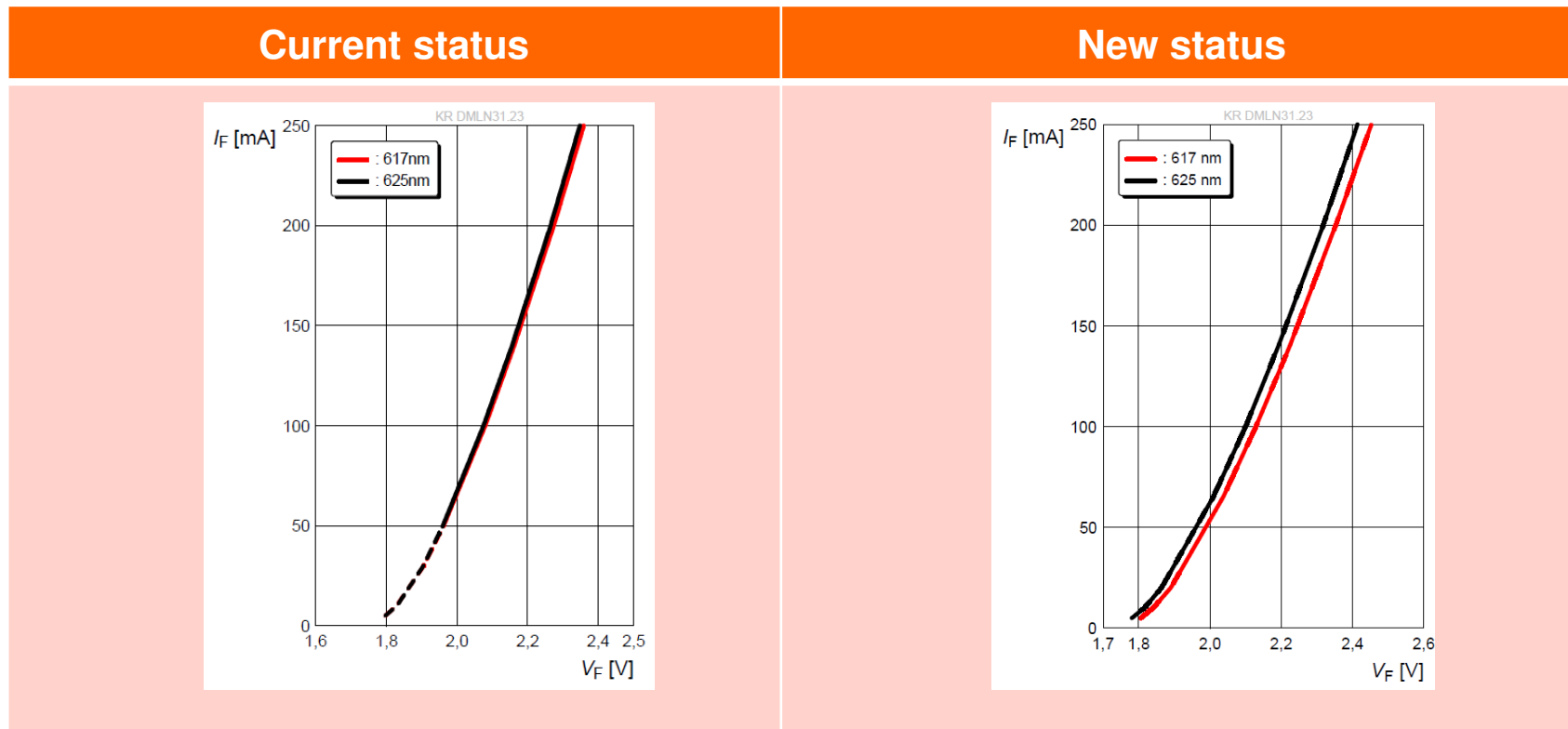
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for SYNIOS P2720 Red - KR DMLN31.23):

Forward Current

$I_F = f(V_F)$; $T_S = 25\text{ °C}$



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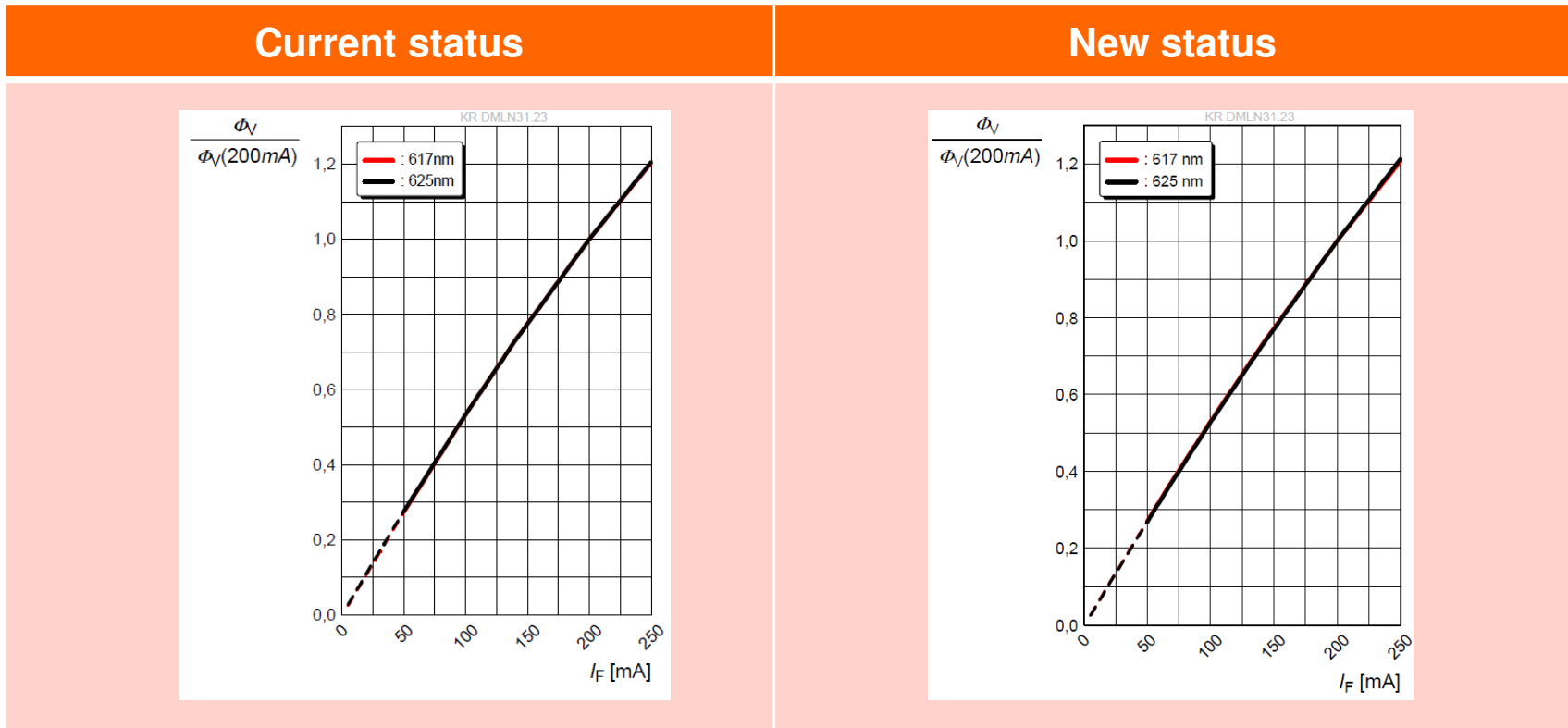
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for SYNIOS P2720 Red - KR DMLN31.23):

Relative Luminous Flux

$$\Phi_V/\Phi_V(200\text{ mA}) = f(I_F); \text{ TS} = 25\text{ °C}$$



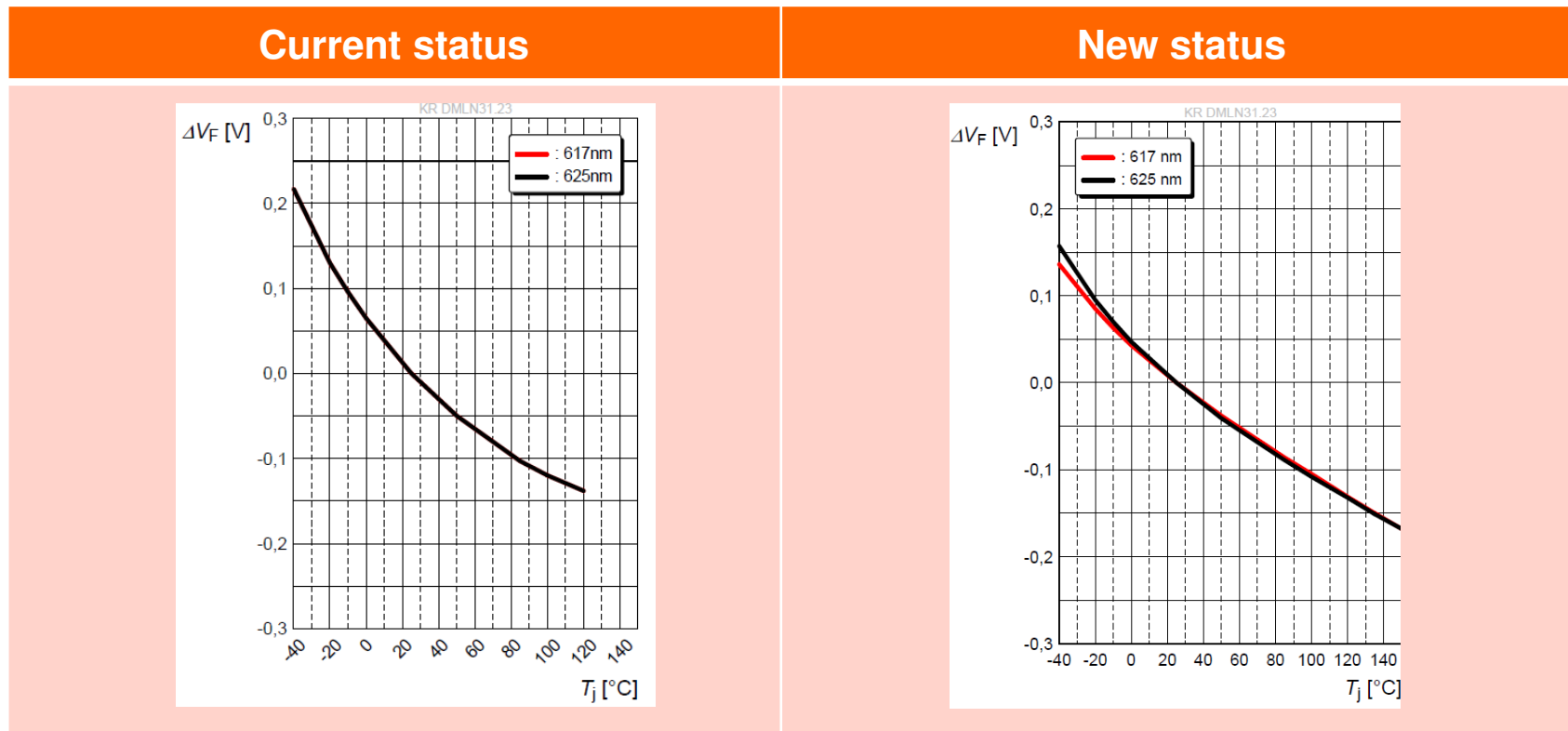
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for SYNIOS P2720 Red - KR DMLN31.23):
Relative Forward Voltage

$$\Delta V_F = V_F - V_F(25\text{ °C}) = f(T_j); I_F = 200\text{ mA}$$



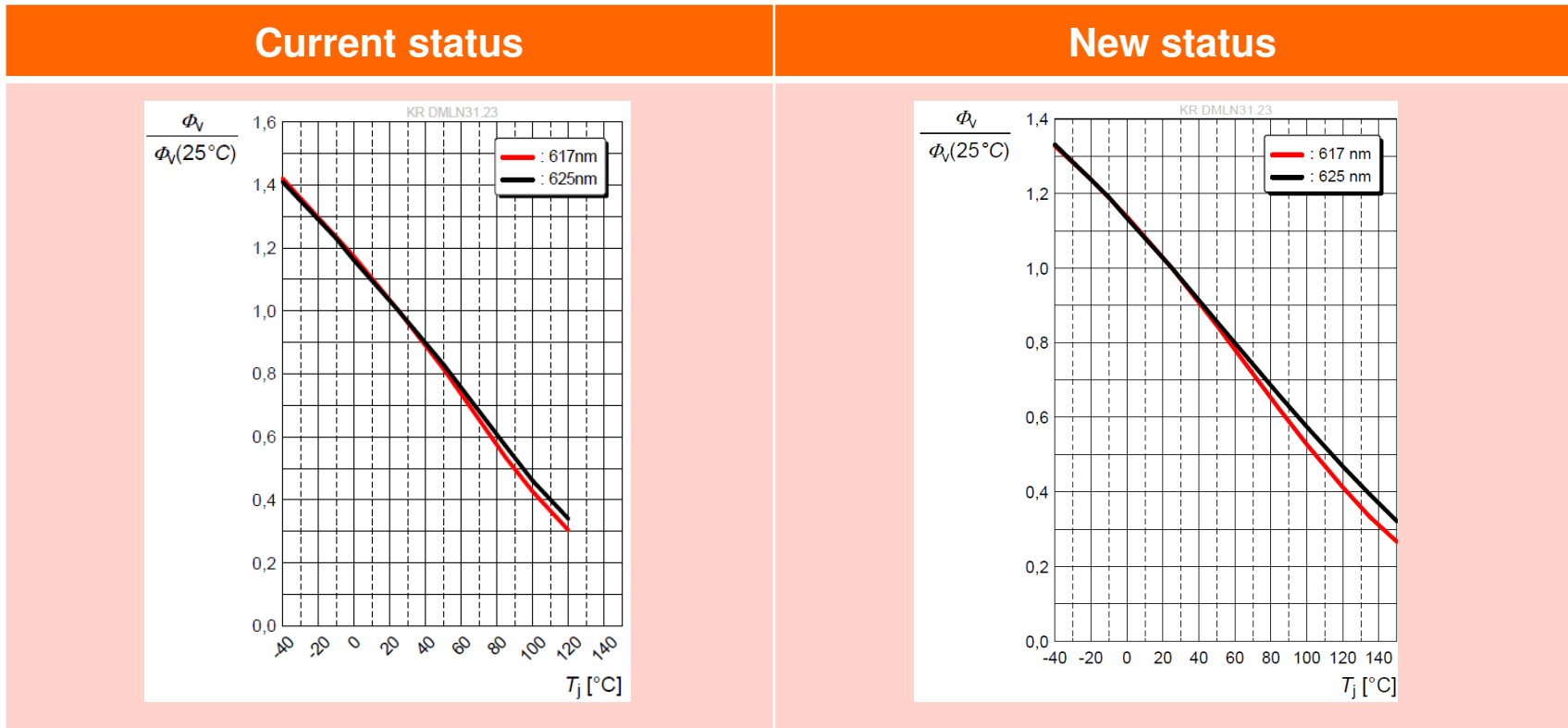
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for SYNIOS P2720 Red - KR DMLN31.23):
Relative Luminous Flux

$$\Phi_V / \Phi_V(25^\circ\text{C}) = f(T_j); \text{ IF} = 200 \text{ mA}$$



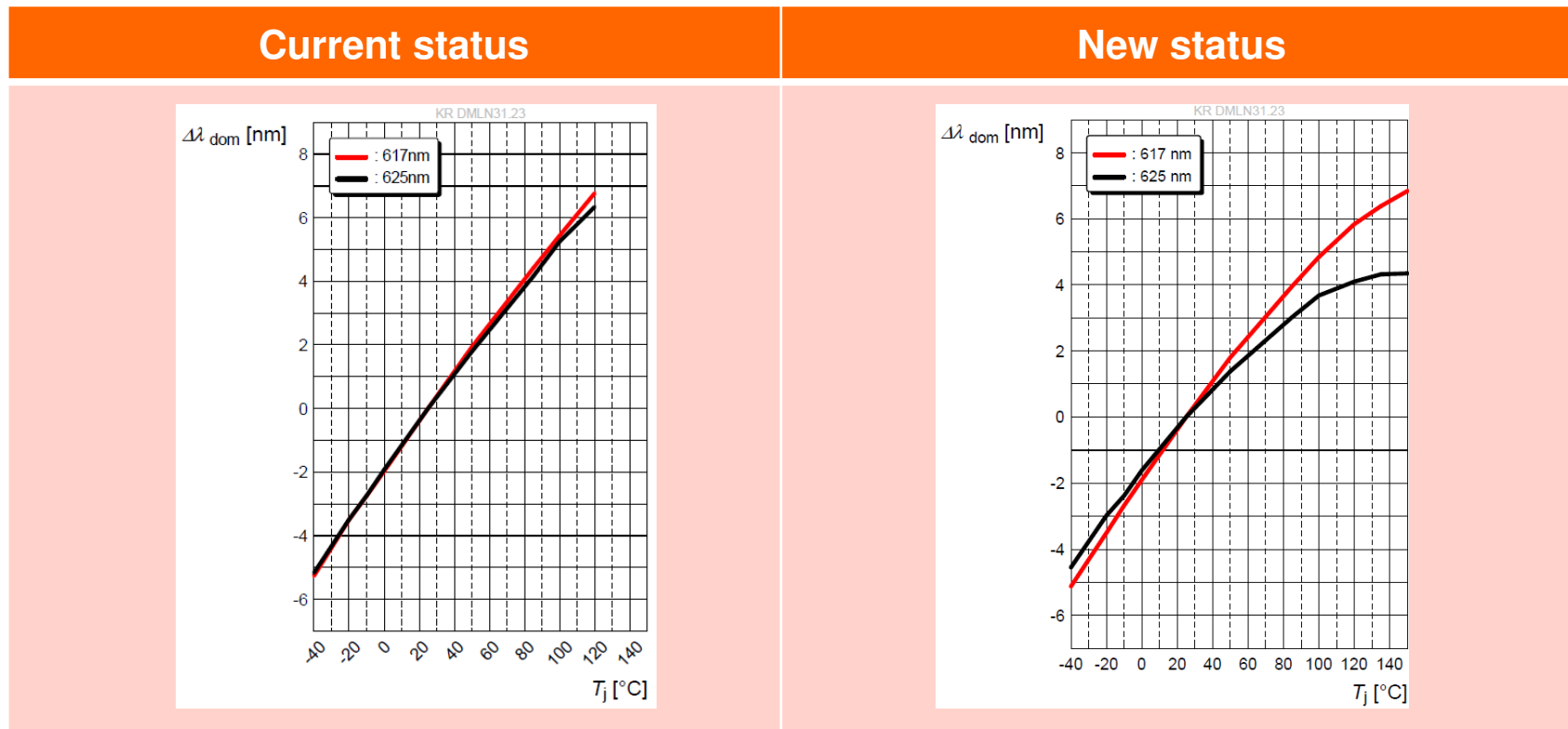
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for SYNIOS P2720 Red - KR DMLN31.23):
Dominant Wavelength

$$\Delta\lambda_{dom} = \lambda_{dom} - \lambda_{dom}(25\text{ °C}) = f(T_j); IF = 200\text{ mA}$$



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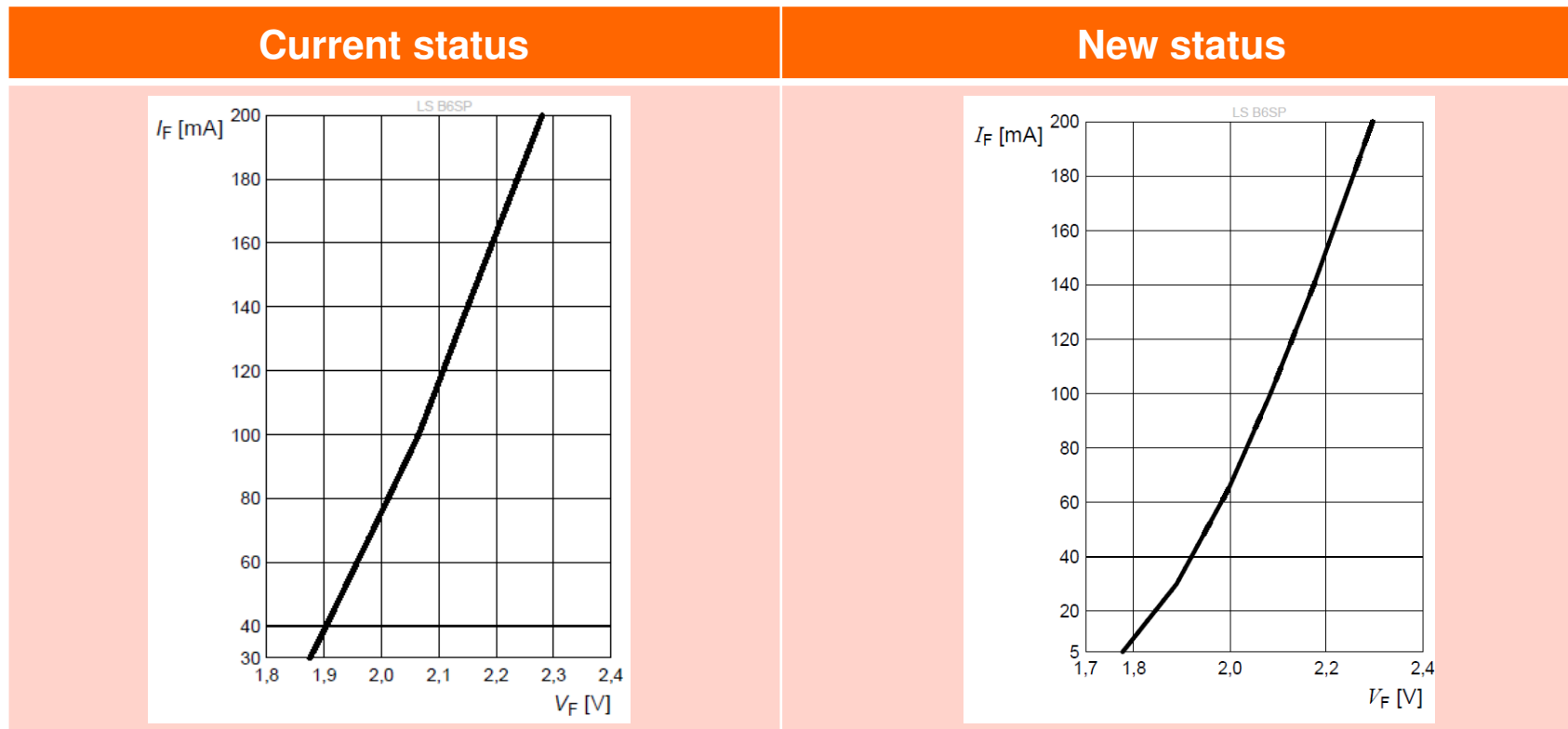
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Superred – LS B6SP):

Forward Current

$I_F = f(V_F)$; $T_S = 25\text{ °C}$



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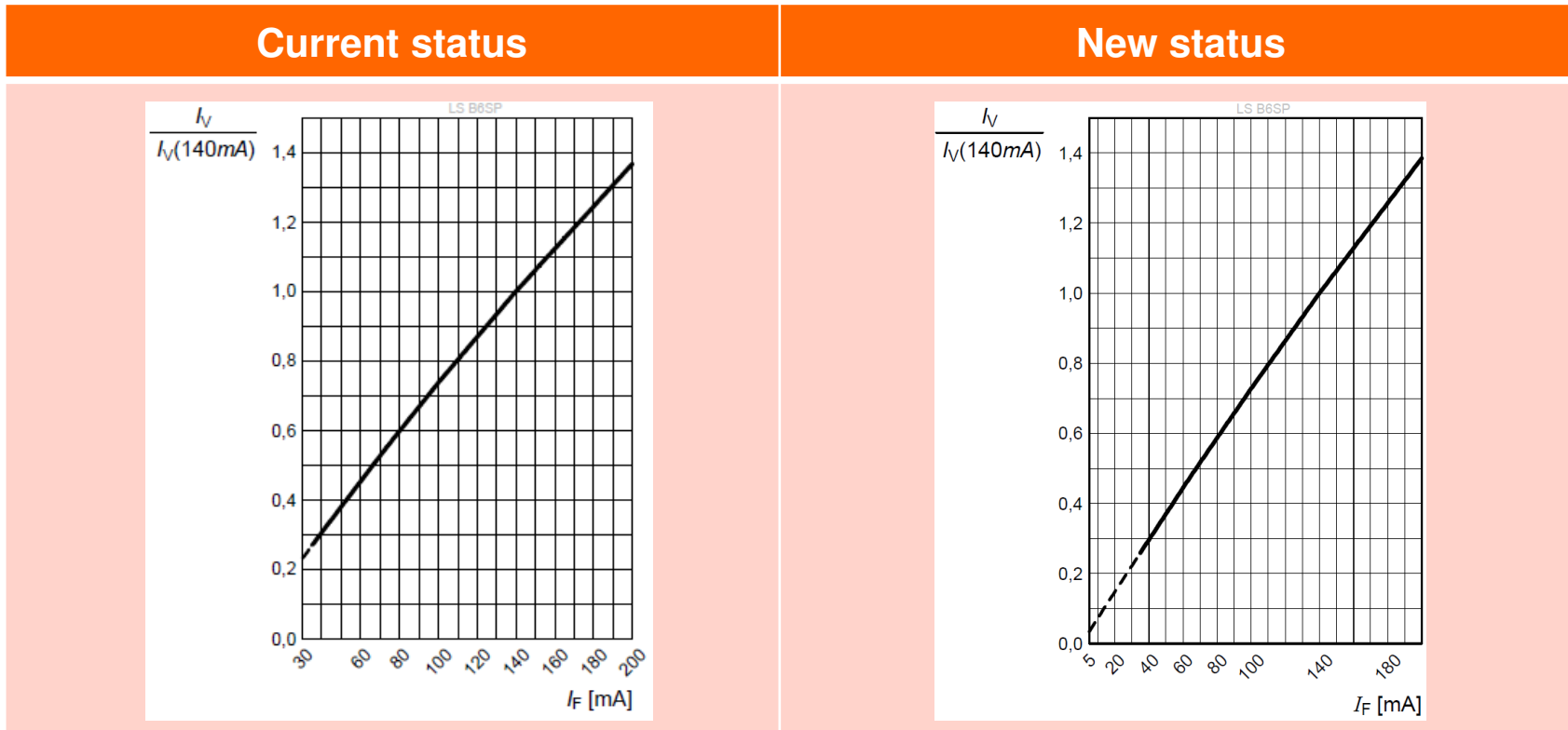
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Superred – LS B6SP):

Relative Luminous Intensity

$$I_V/I_V(140\text{ mA}) = f(I_F); \text{ TS} = 25\text{ °C}$$



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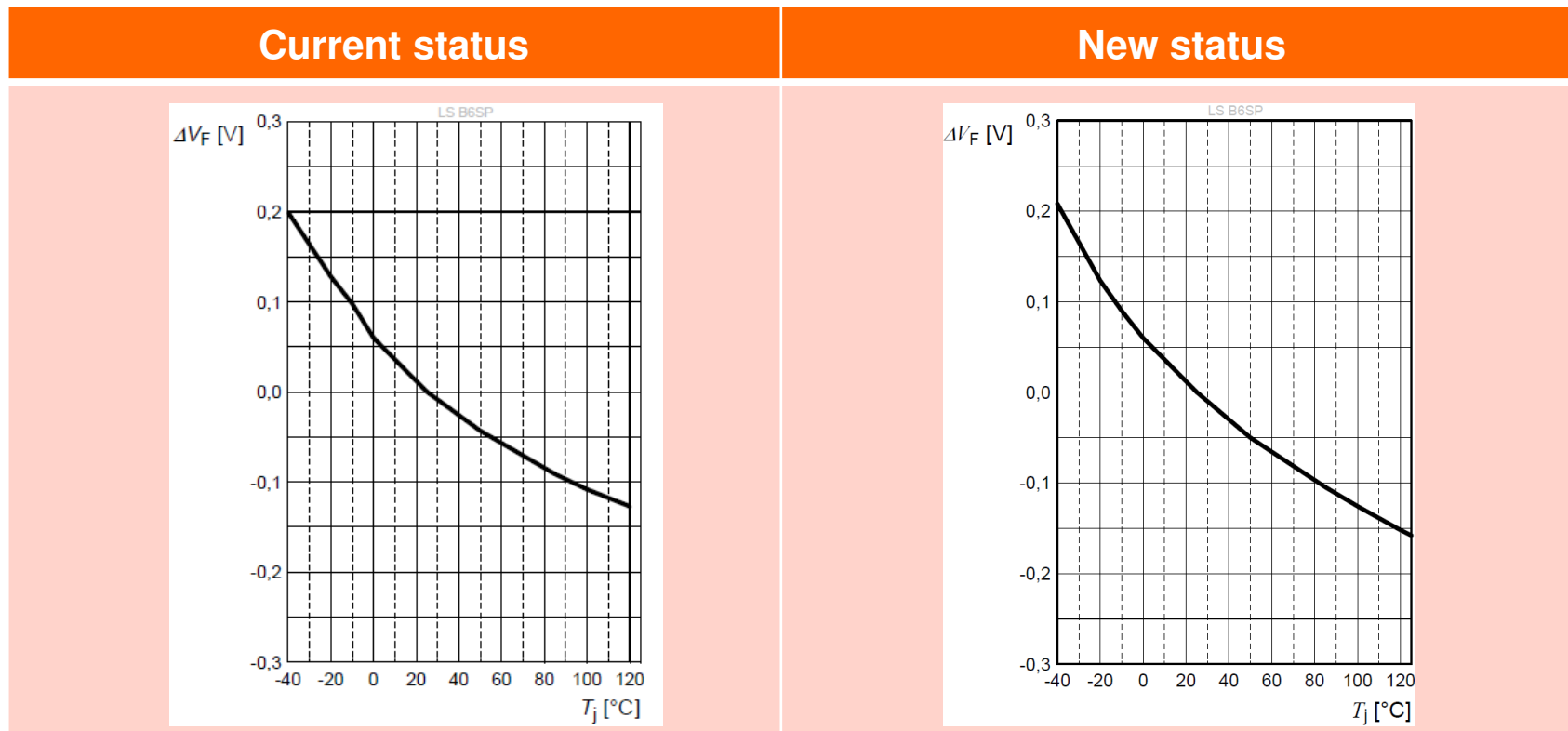
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Superred – LS B6SP):

Relative Forward Voltage:

$$\Delta V_F = V_F - V_F(25\text{ °C}) = f(T_j); I_F = 140\text{ mA}$$



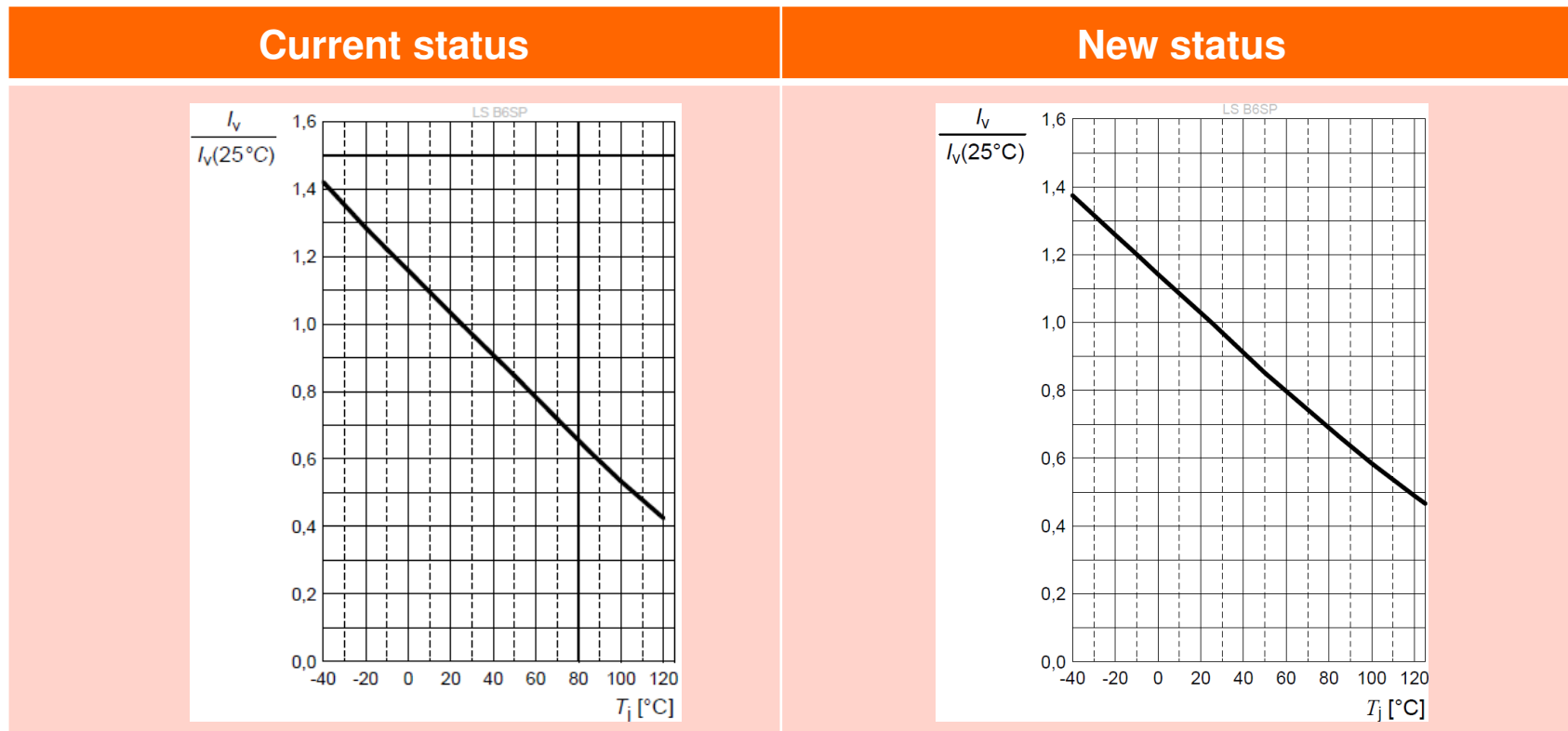
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Superred – LS B6SP):
Relative Luminous Intensity

$$I_V/I_V(25^\circ\text{C}) = f(T_j); I_F = 140 \text{ mA}$$



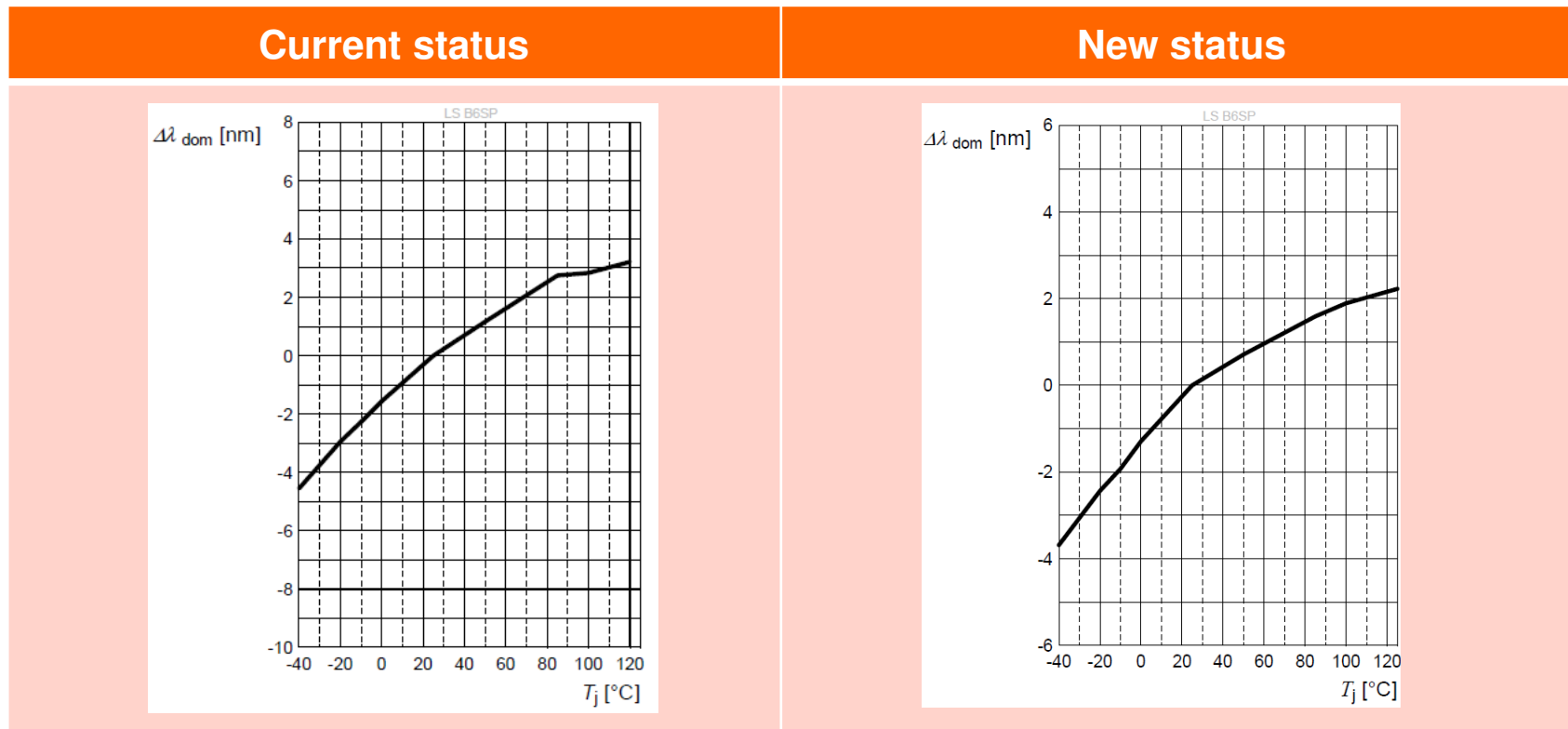
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Superred – LS B6SP):
Dominant Wavelength

$$\Delta\lambda_{dom} = \lambda_{dom} - \lambda_{dom}(25\text{ °C}) = f(T_j); IF = 140\text{ mA}$$



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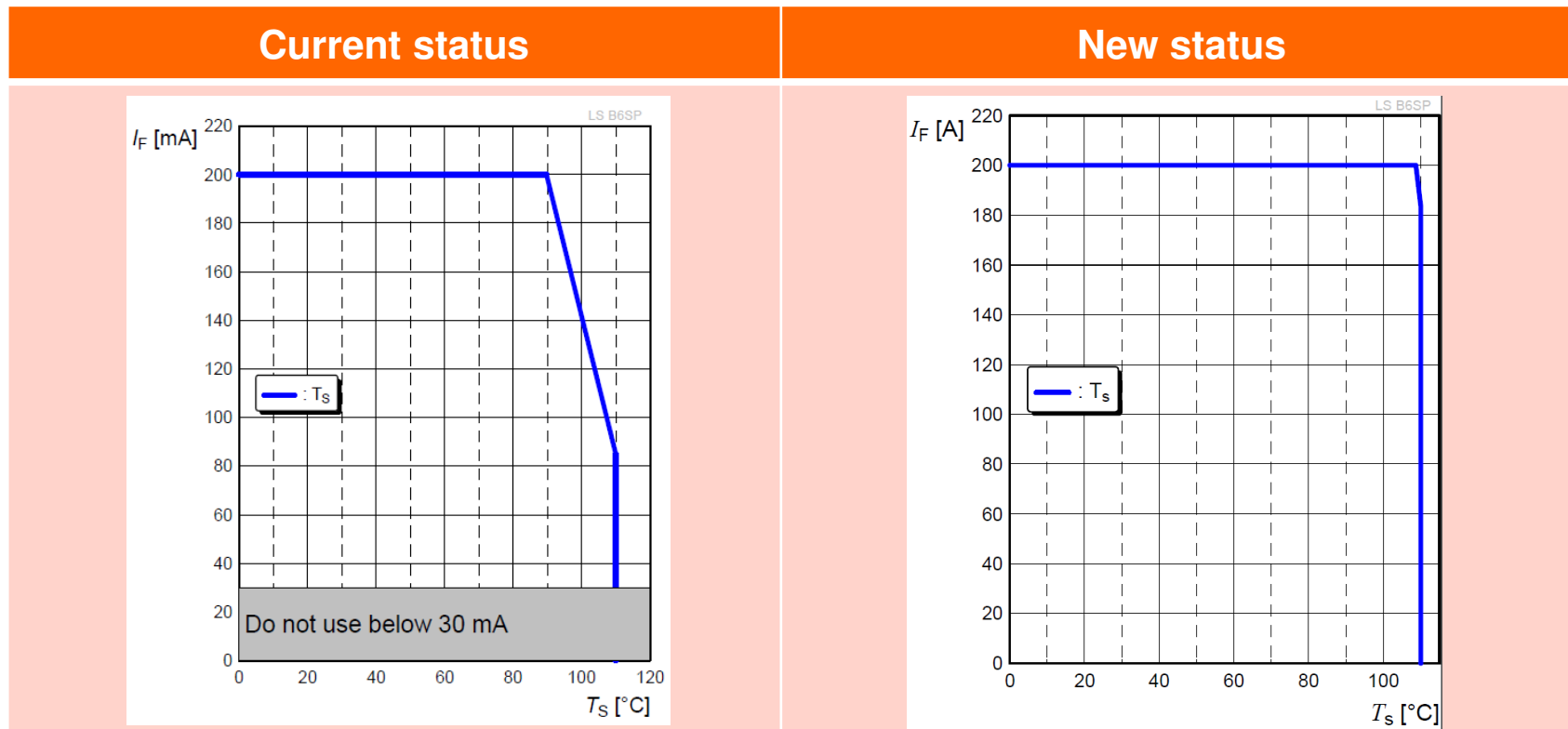
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Superred – LS B6SP):

Max. Permissible Forward Current

$$I_F = f(T)$$



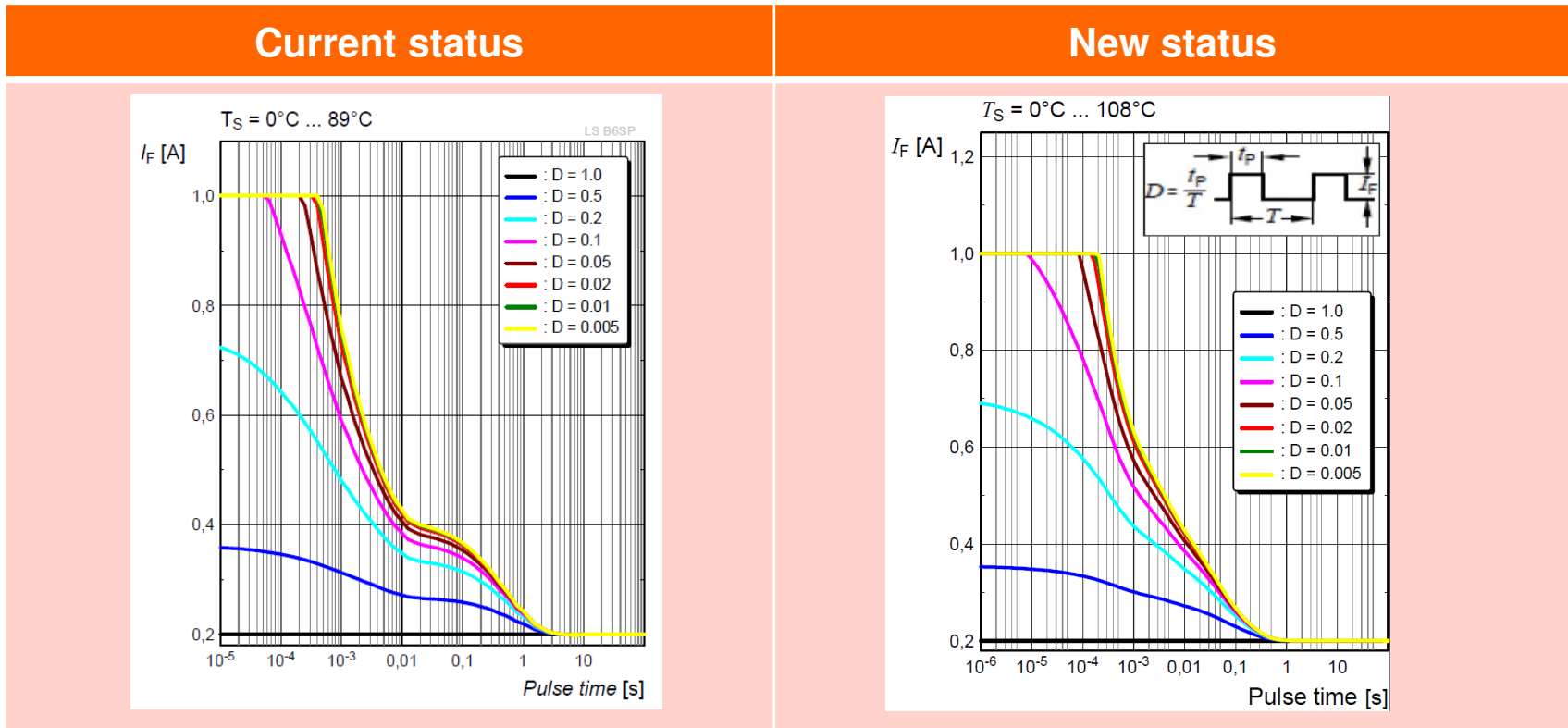
OS-IN-2020-004-A

Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Superred – LS B6SP): Permissible Pulse Handling Capability (1/2)

$I_F = f(t_p)$; D: Duty cycle



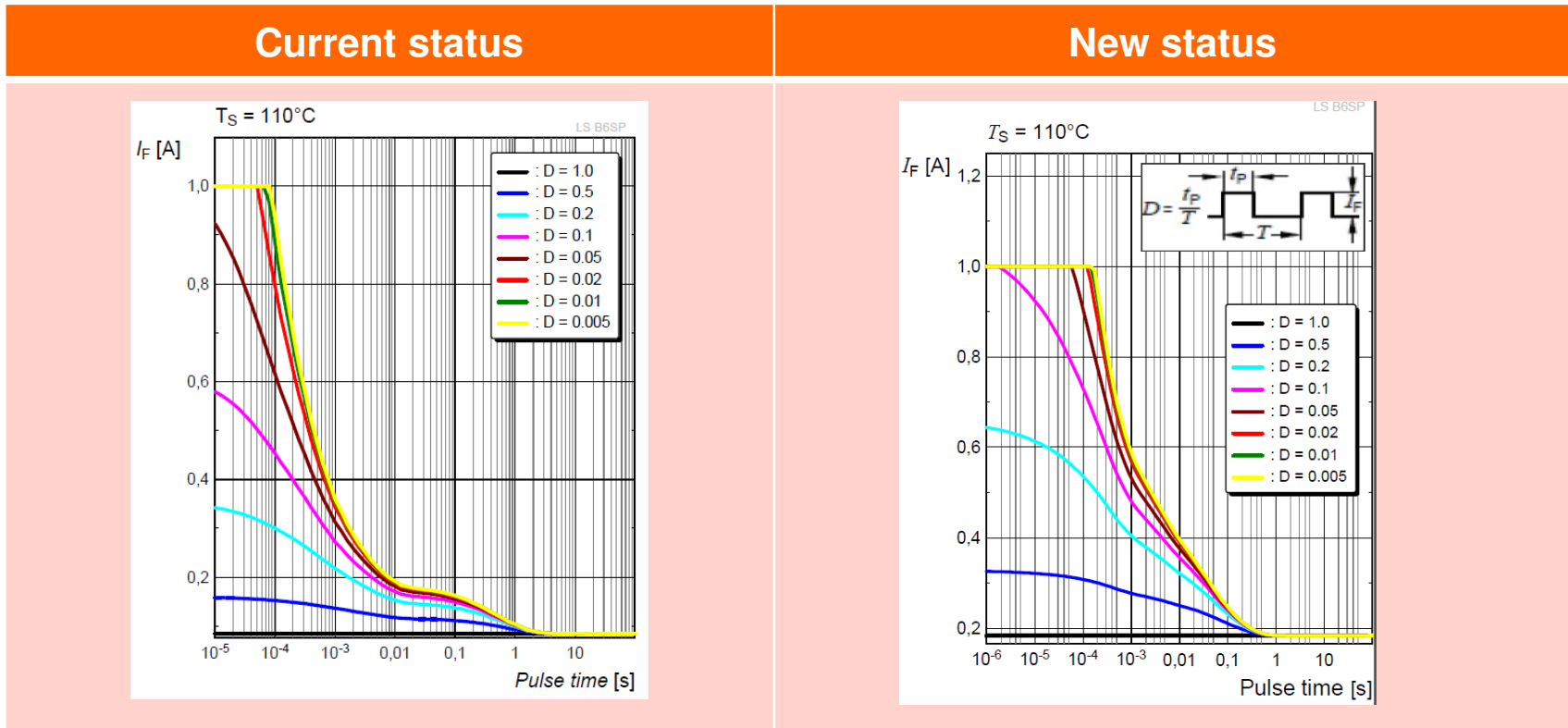
OS-IN-2020-004-A

Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Superred – LS B6SP): Permissible Pulse Handling Capability (2/2)

$I_F = f(t_p)$; D: Duty cycle



OS-IN-2020-004-A

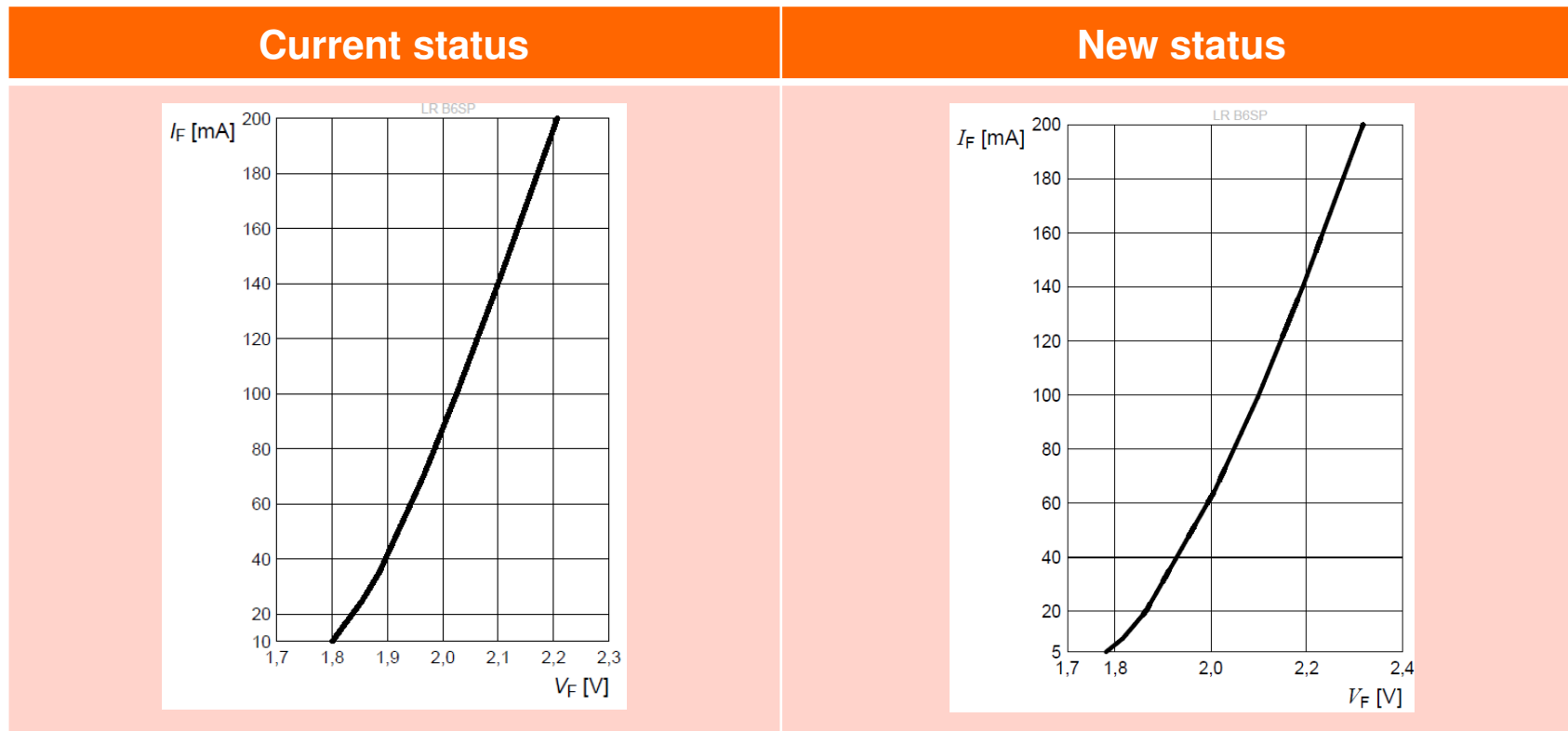
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Red – LR B6SP):

Forward Current

$I_F = f(V_F)$; $T_S = 25\text{ °C}$



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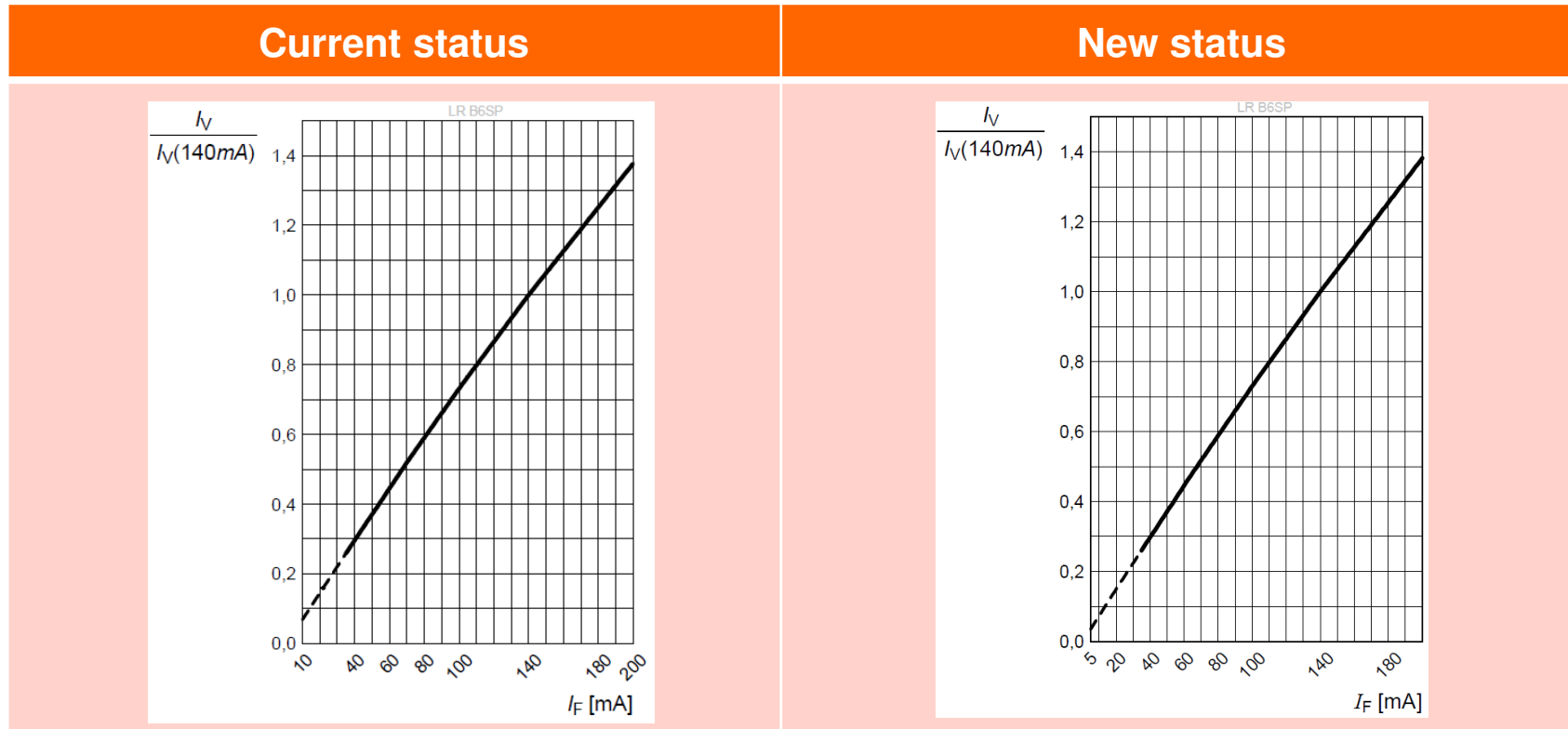
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Red – LR B6SP):

Relative Luminous Intensity

$$I_V/I_V(140\text{ mA}) = f(I_F); \text{ TS} = 25\text{ °C}$$



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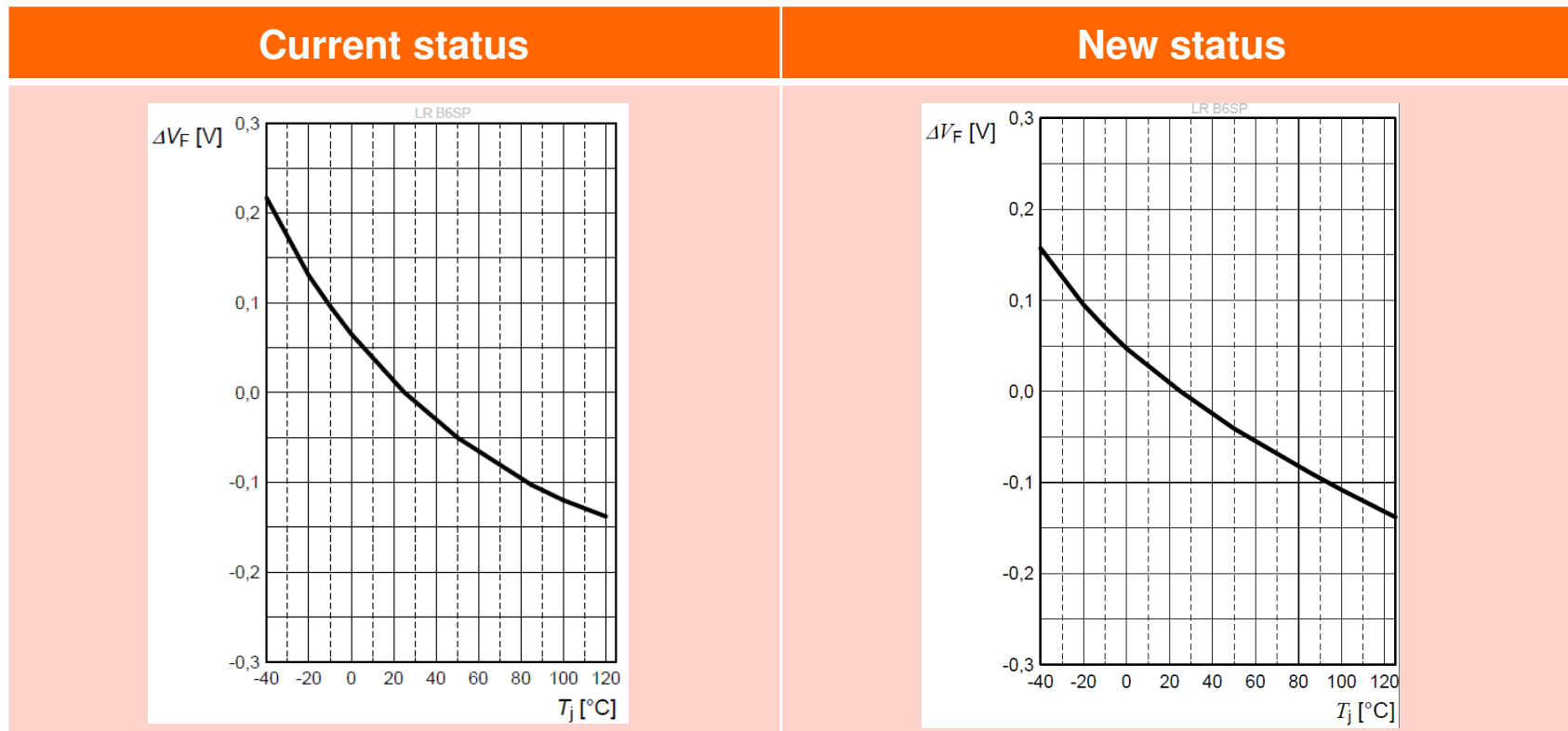
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Red – LR B6SP):

Relative Forward Voltage:

$$\Delta V_F = V_F - V_F(25\text{ °C}) = f(T_j); I_F = 140\text{ mA}$$



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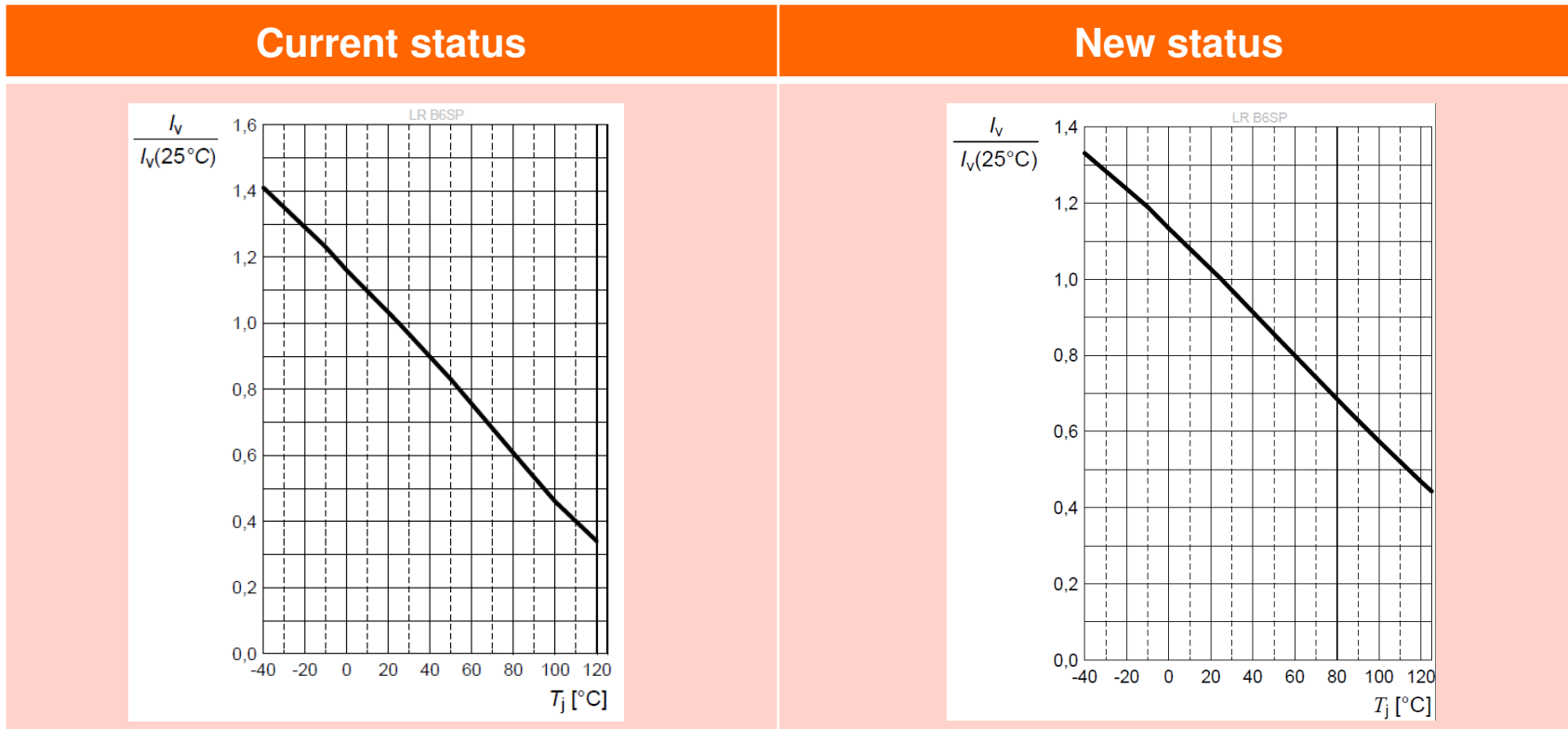
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Red – LR B6SP):

Relative Luminous Intensity

$$I_V/I_V(25^\circ\text{C}) = f(T_j); I_F = 140 \text{ mA}$$



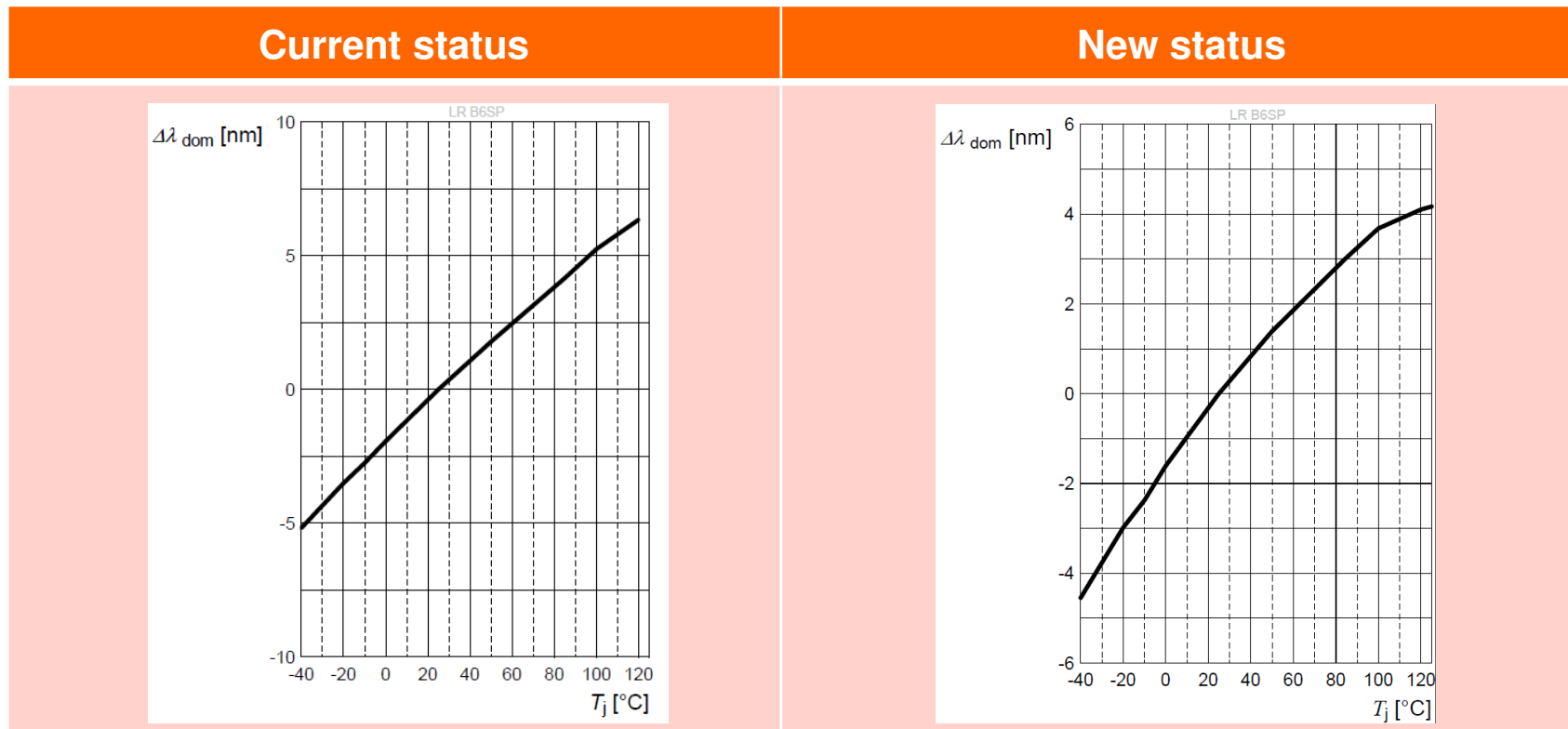
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Red – LR B6SP):
Dominant Wavelength

$$\Delta\lambda_{dom} = \lambda_{dom} - \lambda_{dom}(25\text{ °C}) = f(T_j); IF = 140\text{ mA}$$



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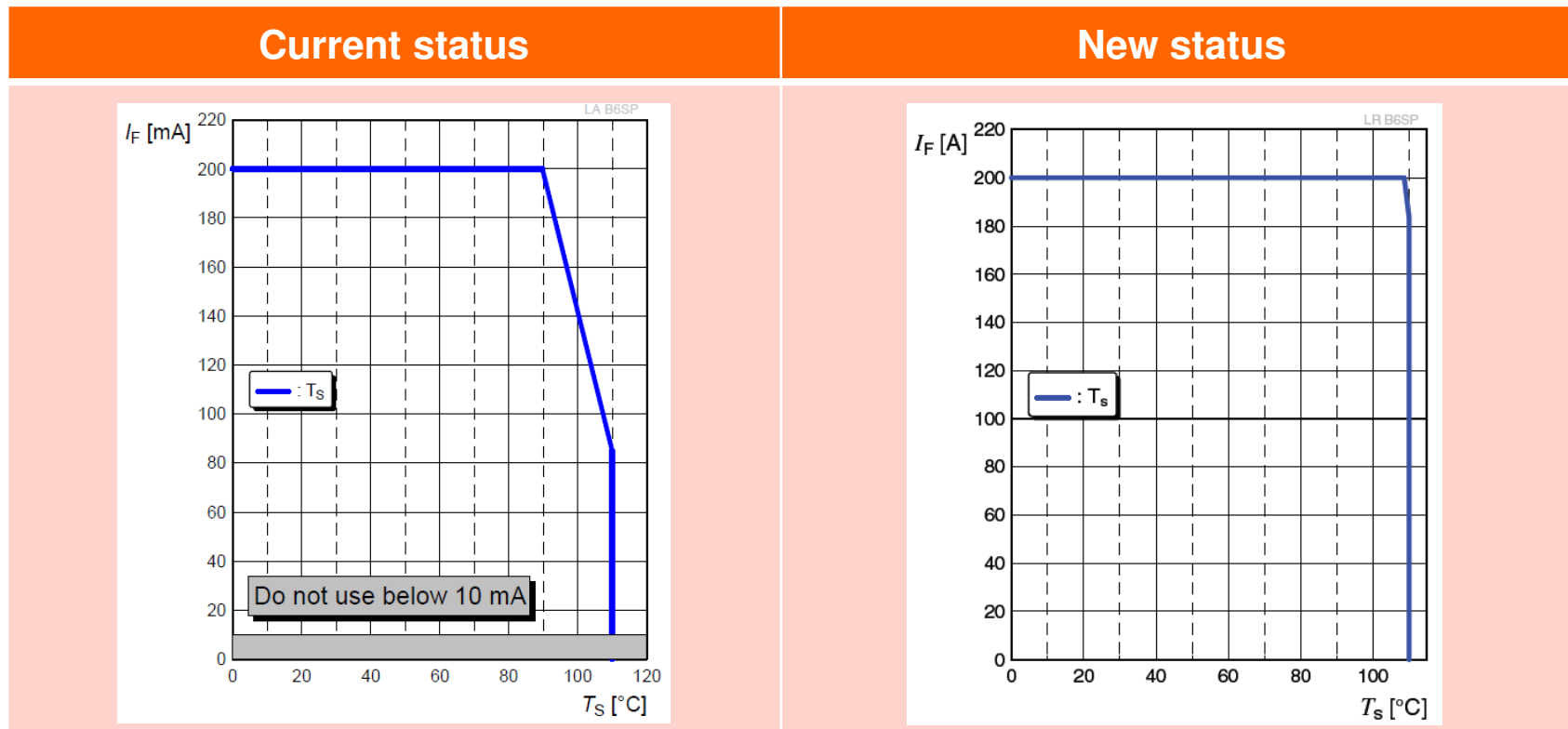
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Red – LR B6SP):

Max. Permissible Forward Current

$$I_F = f(T)$$



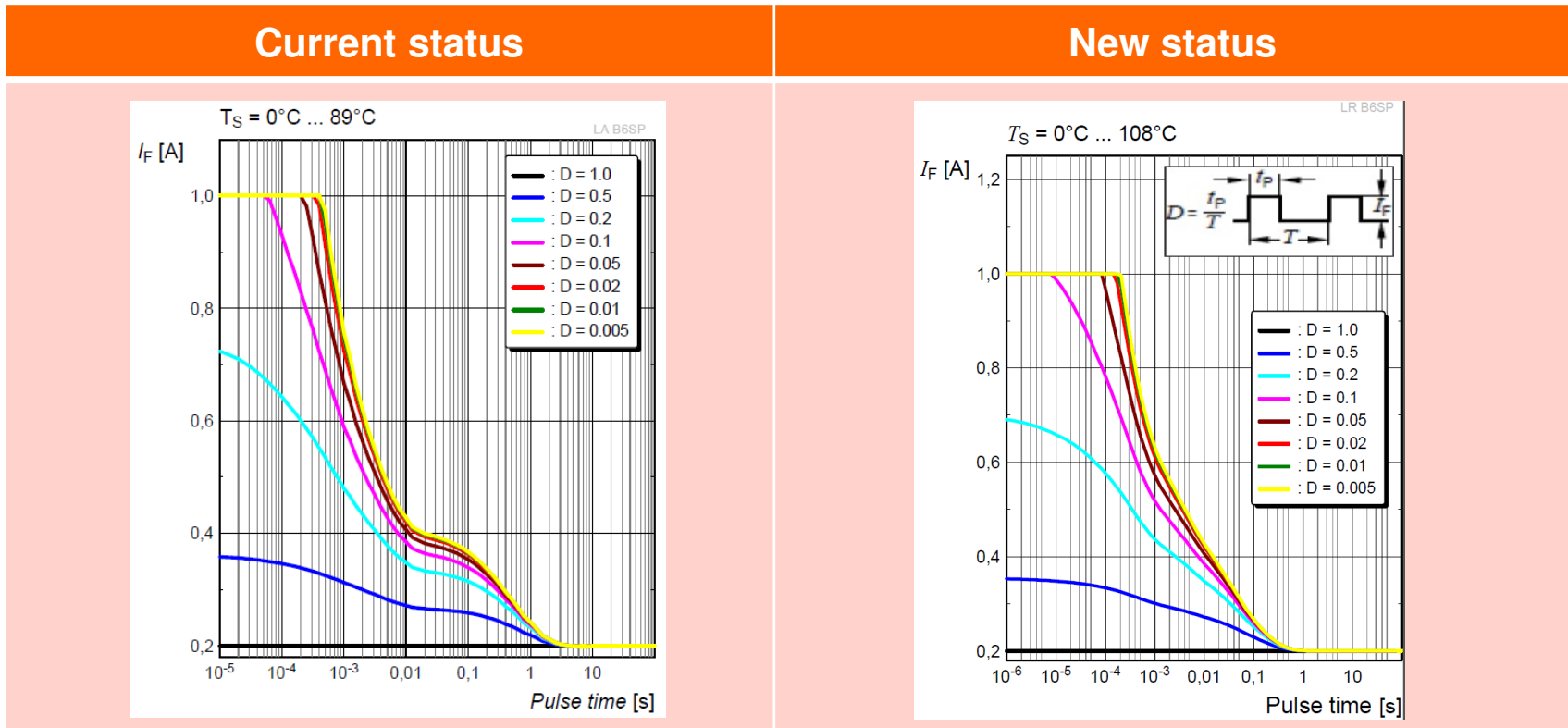
OS-IN-2020-004-A

Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Red – LR B6SP):
Permissible Pulse Handling Capability (1/2)

$I_F = f(t_p)$; D: Duty cycle



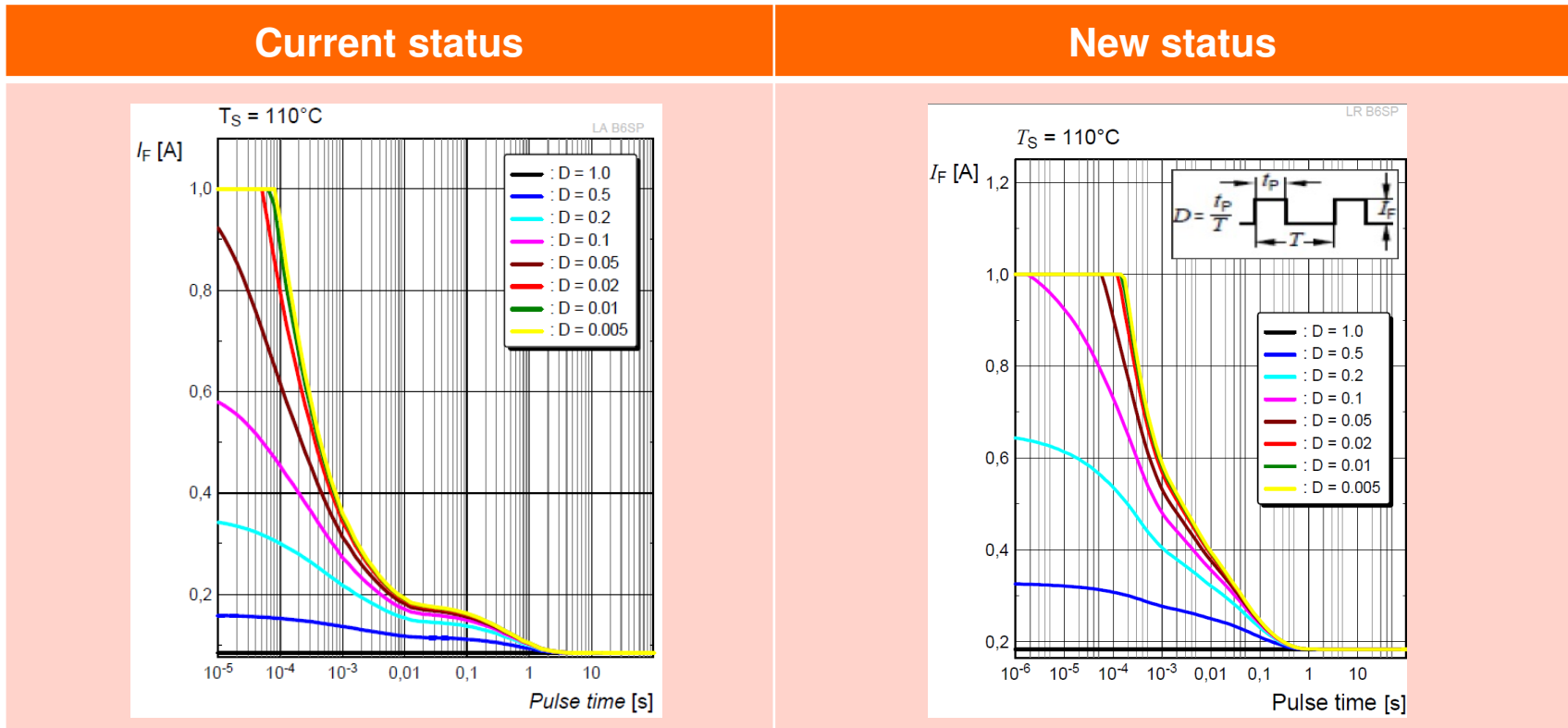
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Red – LR B6SP): Permissible Pulse Handling Capability (2/2)

$I_F = f(t_p)$; D: Duty cycle



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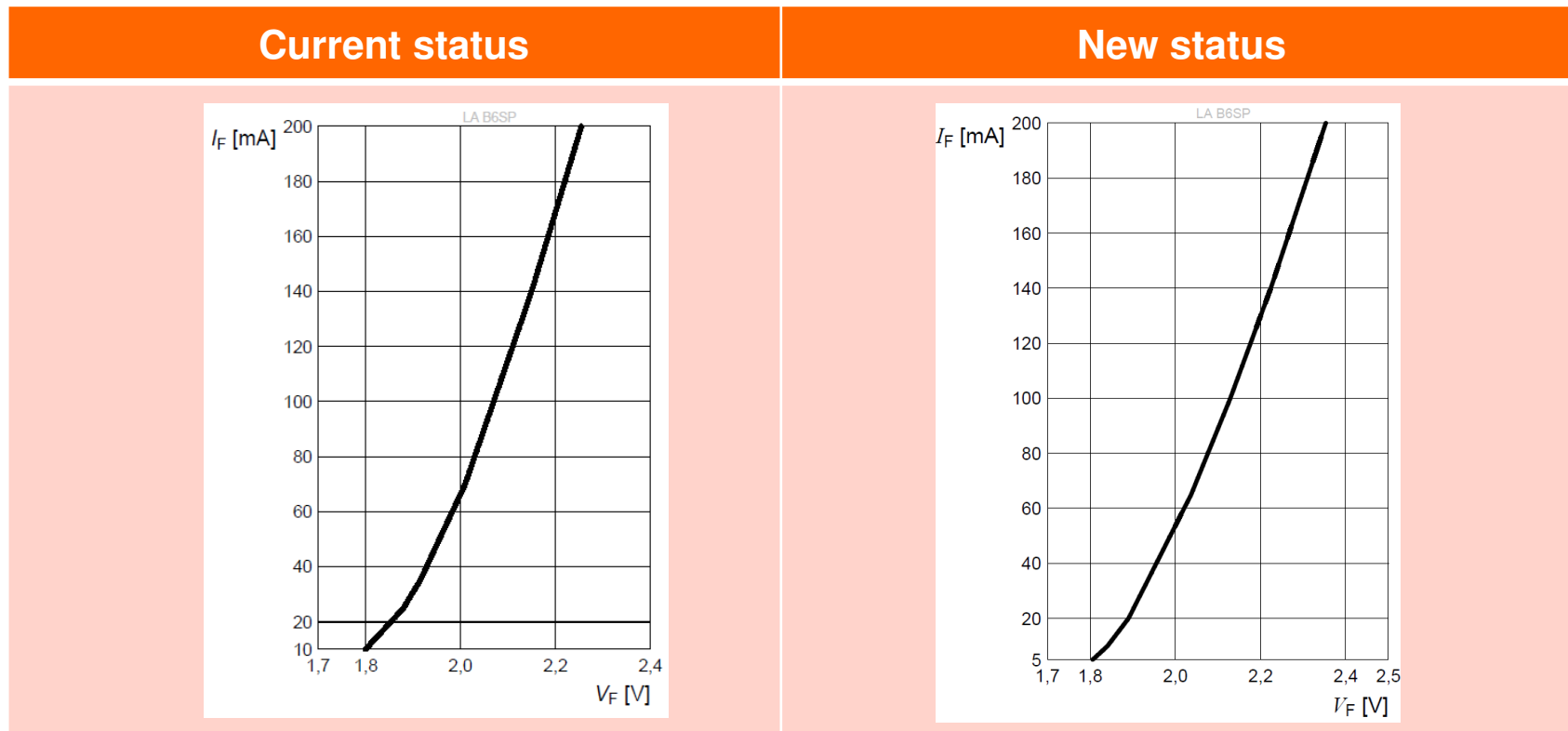
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Amber – LA B6SP):

Forward Current

$I_F = f(V_F)$; $T_S = 25\text{ °C}$



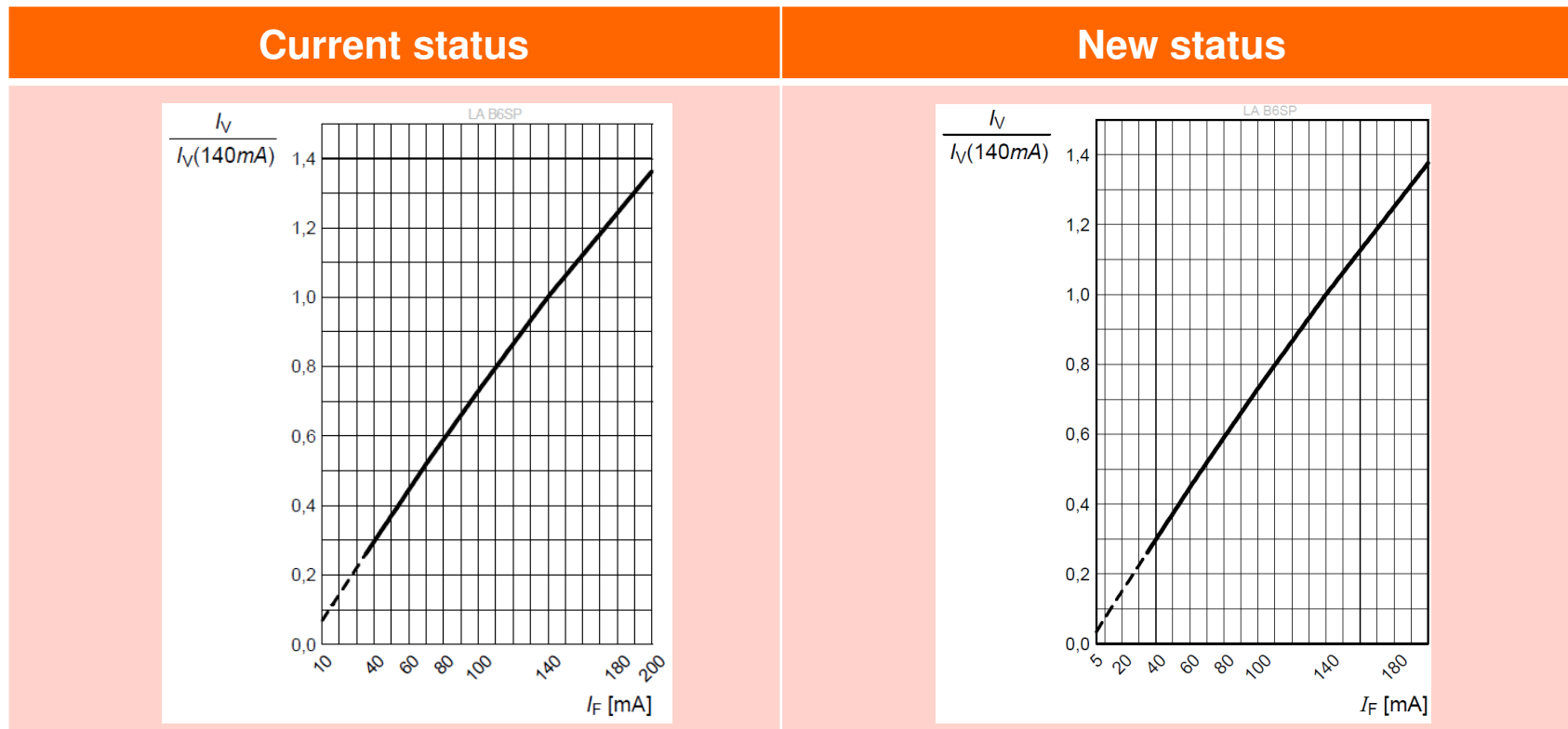
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Amber – LA B6SP):
Relative Luminous Intensity

$$I_V/I_V(140\text{ mA}) = f(I_F); \text{ TS} = 25\text{ °C}$$



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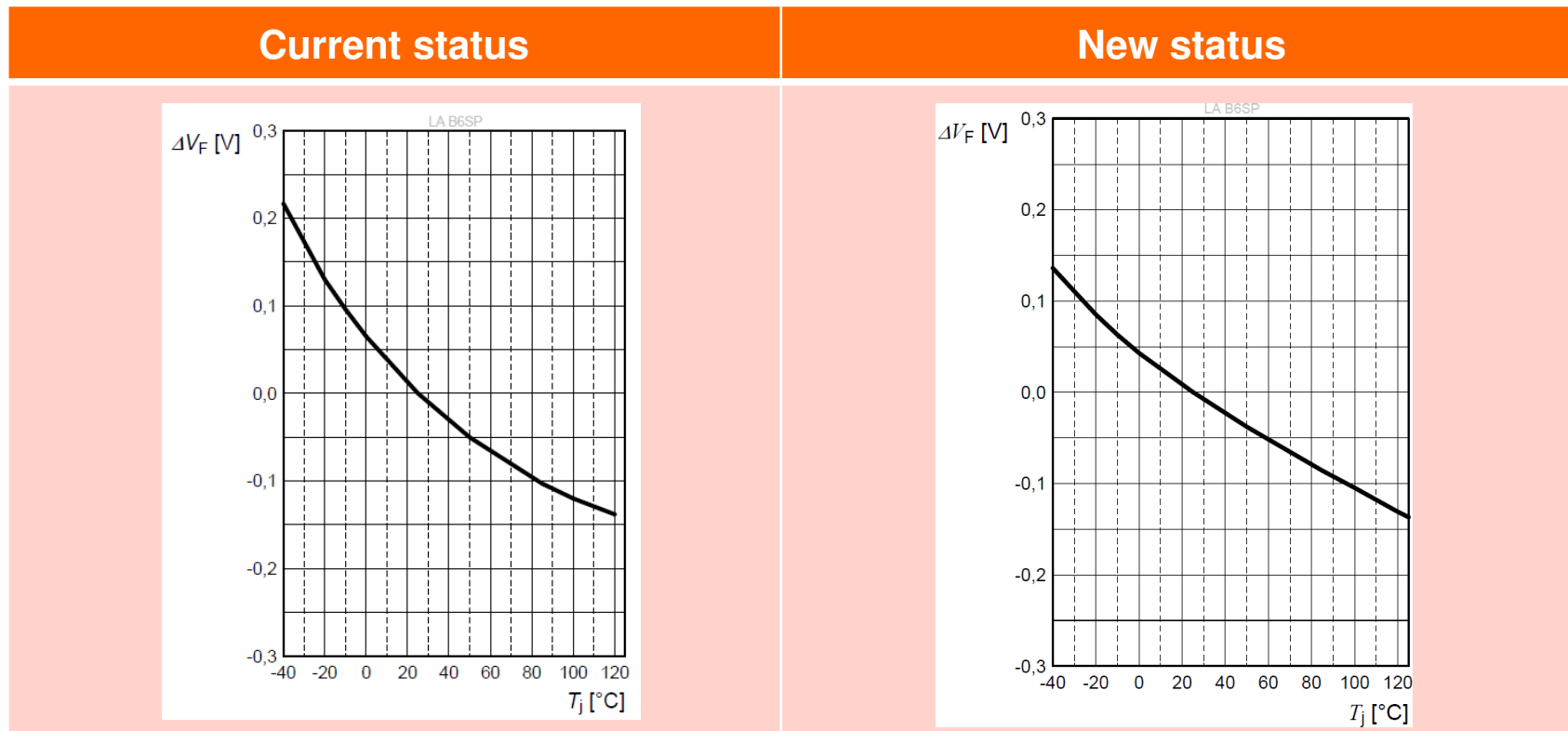
Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Amber – LA B6SP):

Relative Forward Voltage:

$$\Delta V_F = V_F - V_F(25\text{ °C}) = f(T_j); I_F = 140\text{ mA}$$



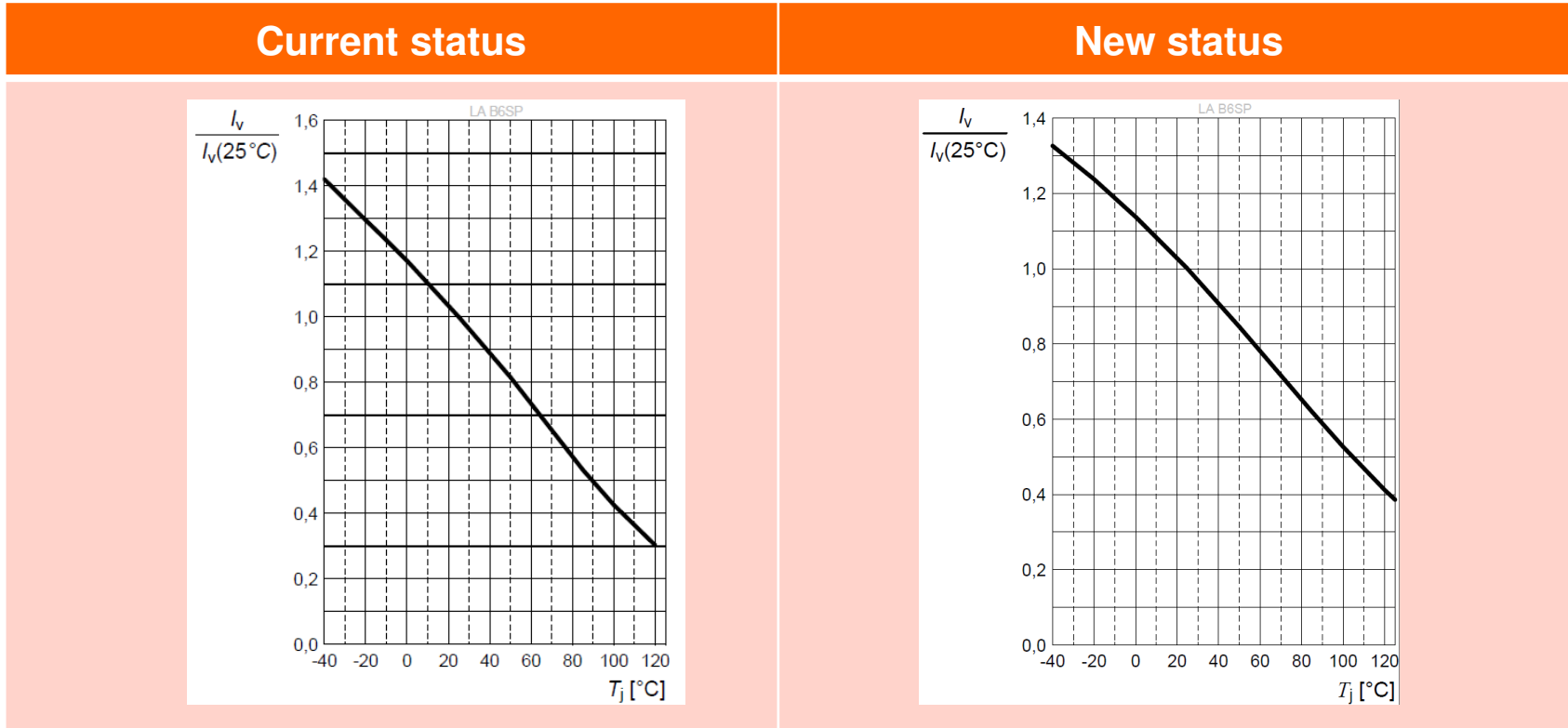
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Amber – LA B6SP):
Relative Luminous Intensity

$$I_V/I_V(25^\circ\text{C}) = f(T_j); I_F = 140 \text{ mA}$$



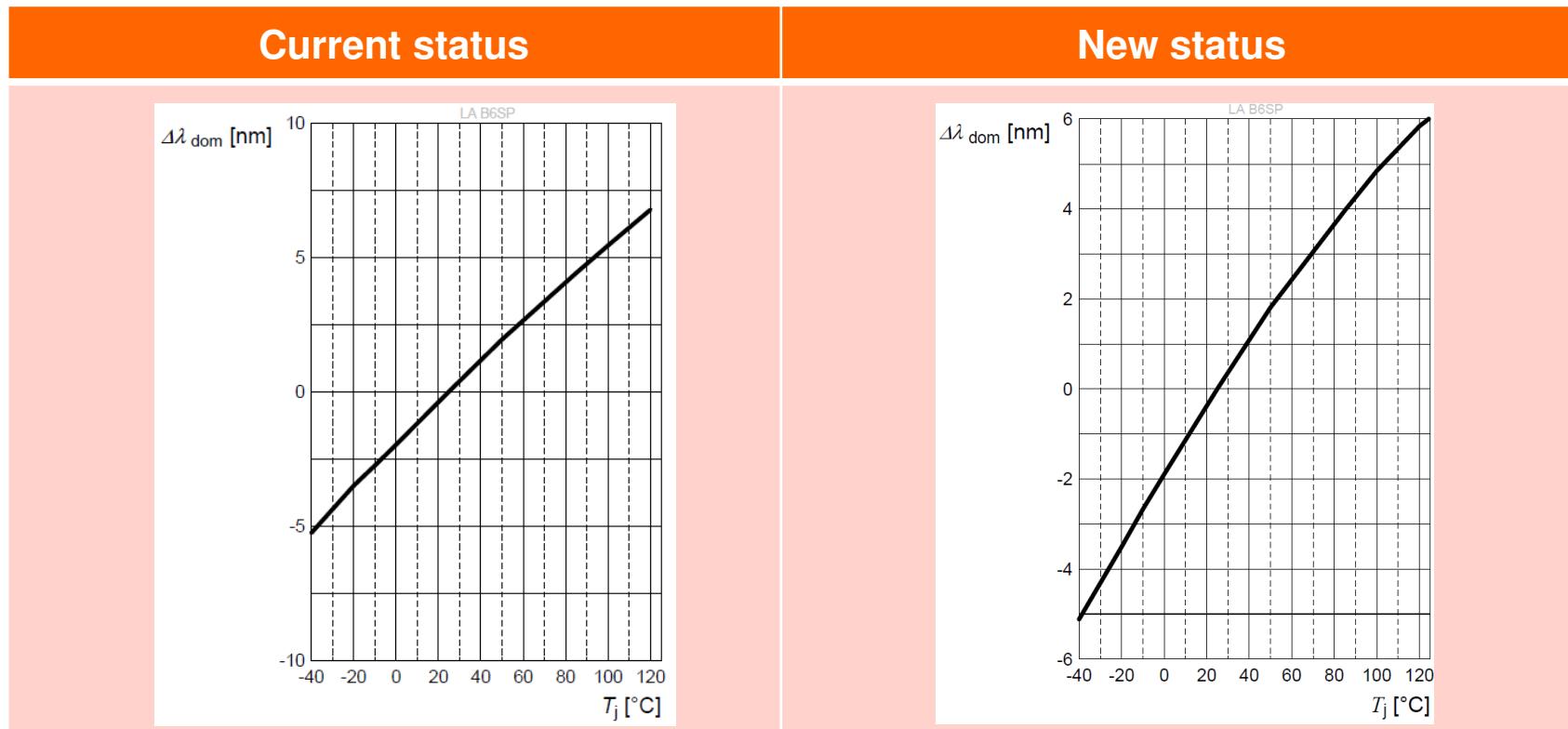
OS-IN-2020-004-A

Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Amber – LA B6SP):
Dominant Wavelength

$$\Delta\lambda_{dom} = \lambda_{dom} - \lambda_{dom}(25\text{ °C}) = f(T_j); IF = 140\text{ mA}$$



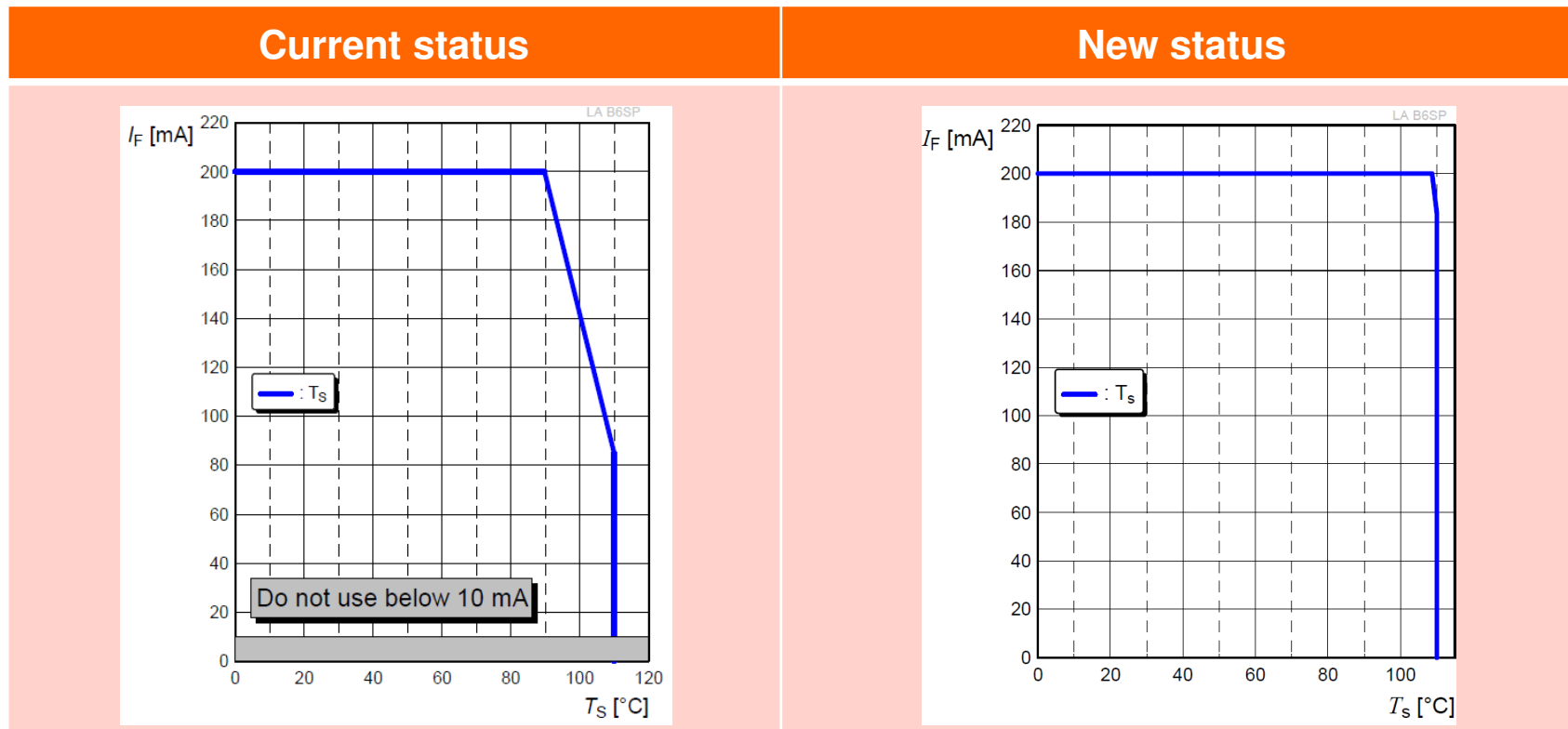
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Amber – LA B6SP):
Max. Permissible Forward Current

$$I_F = f(T)$$



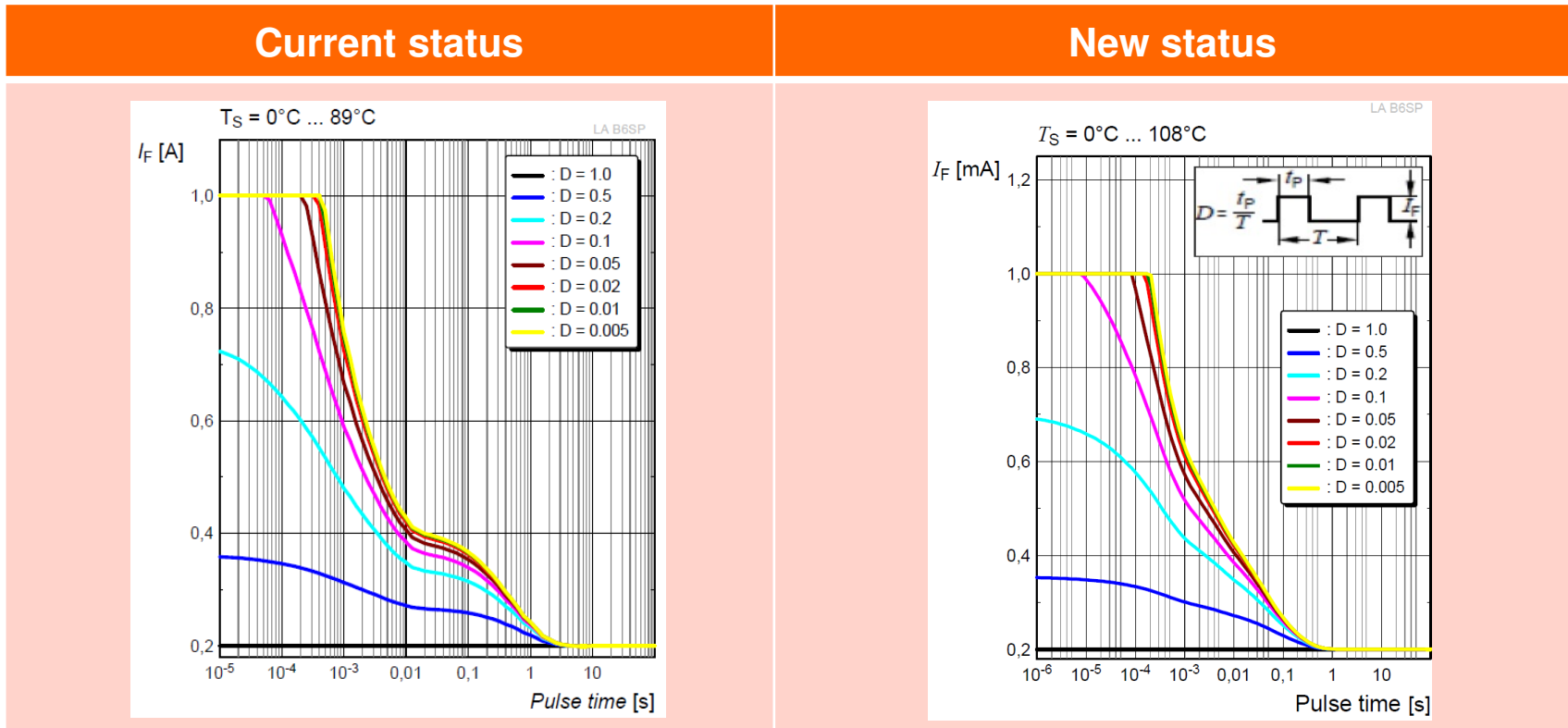
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Amber – LA B6SP):
Permissible Pulse Handling Capability (1/2)

$I_F = f(t_p)$; D: Duty cycle



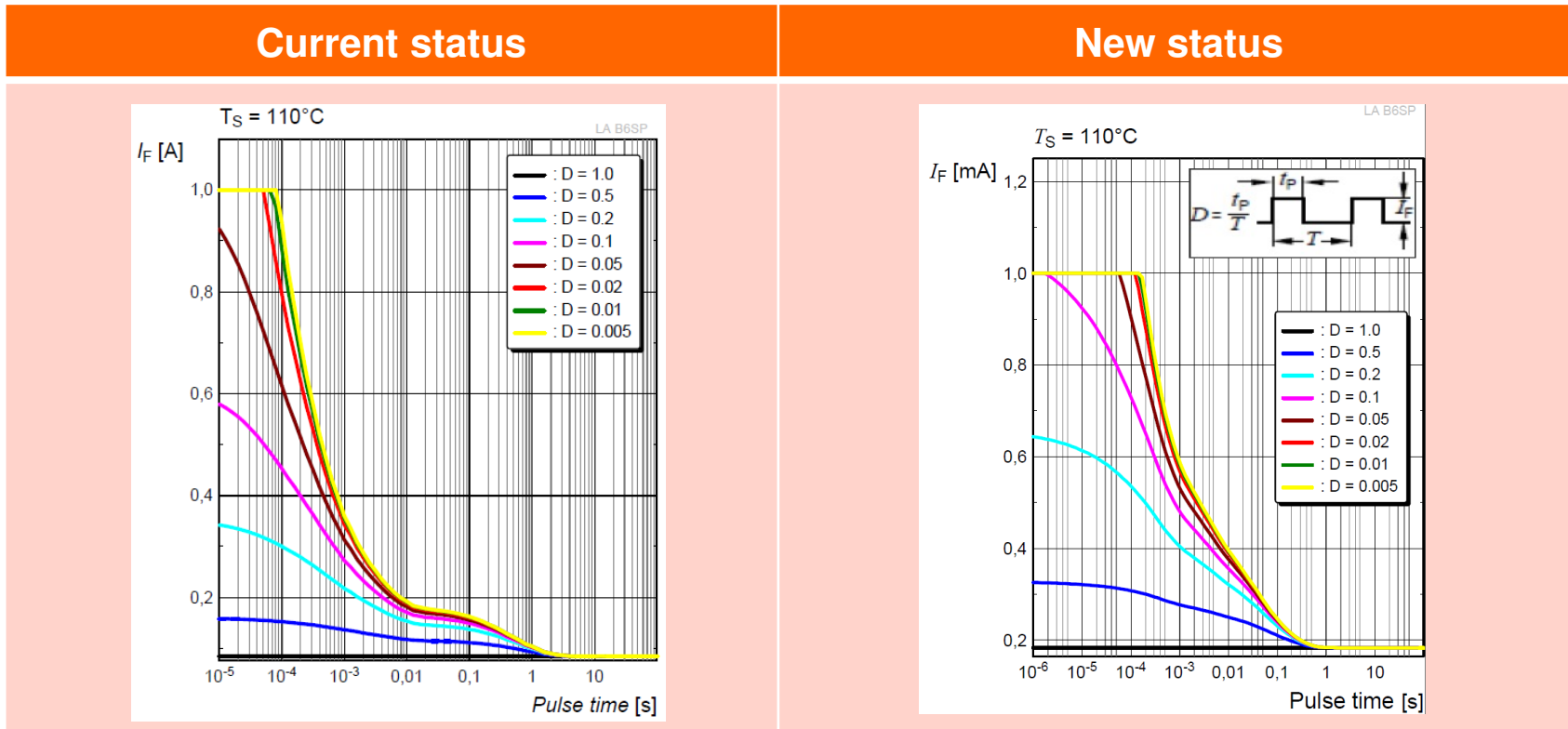
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Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500µm TF Chip



Description of change (for Power SIDELED Amber – LA B6SP): Permissible Pulse Handling Capability (2/2)

$I_F = f(t_p)$; D: Duty cycle



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Thank you.

Products Affected by Information Notification

Number: OS-IN-2020-004

Name: Correction of characteristic curves for PowerSIDELED and SYNIOS P2720 with 500 um TF Chip

Release Date: 2/17/2020

Implementation Date: 2/17/2020

<i>Product</i>	<i>QNumber</i>	<i>QNumber Description</i>	<i>Part Number</i>	
KR DMLN31.23	Q65111A5985	KR DMLN31.23-GXJY-26-1-200-R18-Z	KR DMLN31.23-GXJY-26-1-Z	
	Q65111A8676	KR DMLN31.23-AABB-1-1+GZHZ-24-1-R18	KR DMLN31.23-AABB-1-1+GZHZ-24-1	
	Q65111A9345	KR DMLN31.23-HYJX-24-J3T3-200-R18-Z-X	KR DMLN31.23-HYJX-24-J3T3-Z-XX	
	Q65111A9811	KR DMLN31.23-HXHZ-24-J3T3-200-R18-Z-	KR DMLN31.23-HXHZ-24-J3T3-Z-VL	
	Q65112A0026	KR DMLN31.23-HXHZ-34-J3M3-200-R18-Z	KR DMLN31.23-HXHZ-34-J3M3-Z	
	Q65112A0164	KR DMLN31.23-HYJX-23-J3Q3-200-R18-Z-	KR DMLN31.23-HYJX-23-J3Q3-Z-HE	
	Q65112A0329	KR DMLN31.23-HYHZ-34-J3M3-200-R18-Z-	KR DMLN31.23-HYHZ-34-J3M3-XX	
	Q65112A1011	KR DMLN31.23-HYJX-24-J3T3-200-R18-Z-	KR DMLN31.23-HYJX-24-J3T3-Z-HE	
	Q65112A1322	KR DMLN31.23-HXHZ-24-J3T3-200-R18-Z	KR DMLN31.23-HXHZ-24-R18-Z	
	Q65112A1361	KR DMLN31.23-HYJX-24-J3T3-200-R18-Z-	KR DMLN31.23-HYJX-24-J3T3-Z-VEN	
	Q65112A1433	KR DMLN31.23-HXHZ-24-J3T3-200-R18-Z-	KR DMLN31.23-HXHZ-24-J3T3-Z-BAY	
	Q65112A1840	KR DMLN31.23-HXHZ-45-J3T3-200-R18-Z-	KR DMLN31.23-HXHZ-45-J3T3-Z-BAY	
	Q65112A2122	KR DMLN31.23-GZHY-56-J3T3-200-R18-Z-	KR DMLN31.23-GZHY-56-J3T3-B	
	Q65112A2125	KR DMLN31.23-HYJX-24-J3T3-200-R18-Z-	KR DMLN31.23-HYJX-24-J3T3-Z-VL	
	Q65112A2126	KR DMLN31.23-HXHZ-24-J3T3-200-R18-Z-	KR DMLN31.23-HXHZ-24-J3T3-Z-LM	
	Q65112A2146	KR DMLN31.23-HYHZ-24-J3T3-200-R18-Z-	KR DMLN31.23-HYHZ-24-J3T3-200-HAN	
	KS DMLN31.23	Q65111A5987	KS DMLN31.23-FZHX-1-J3T3-200-R18-Z	KS DMLN31.23-FZHX-1-J3T3-Z
		Q65111A8152	KS DMLN31.23-GYHX-68-J3T3-200-R18-Z-	KS DMLN31.23-GYHX-68-J3T3-Z-HE
		Q65111A8569	KS DMLN31.23-FYHX-68-J3T3-200-R18-Z	KS DMLN31.23-FYHX-68-J3T3
Q65112A0327		KS DMLN31.23-GXGZ-D1-J3T3-200-R18-Z-	KS DMLN31.23-GXGZ-D1-J3T3-HE	
Q65112A2400		KS DMLN31.23-FZGZ-D1-J3T3-200-R18-Z-	KS DMLN31.23-FZGZ-D1-J3T3-Z-XX	
LA B6SP	Q65111A3297	LA B6SP-CBEA-24-1-140-R33-Z	LA B6SP-CBEA-24-1	
	Q65111A3897	LA B6SP-EAFA-24-G3R3-140-R33-Z-AL	LA B6SP-EAFA-24-G3R3-L-Z-AL	
	Q65111A4043	LA B6SP-DBEB-24-1-140-R33-Z	LA B6SP-DBEB-24-1-L-Z	
	Q65111A5230	LA B6SP-DAEA-24-1-140-R33-Z	LA B6SP-DAEA-24-1-Z	
	Q65111A5339	LA B6SP-EAFA-24-1-140-R33-Z-XX	LA B6SP-EAFA-24-1-140-L-Z-XX	
	Q65111A6626	LA B6SP-DBEB-24-G3R3-140-R33-Z-AL	LA B6SP-DBEB-24-G3R3-Z-AL	
	Q65111A7102	LA B6SP-EAFA-24-1-140-R33-Z-VEN	LA B6SP-EAFA-24-1-Z-VEN	
	Q65111A8269	LA B6SP-EAEB-23-1-140-R33-Z-HAN	LA B6SP-EAEB-23-1-Z-HAN	
	Q65111A8491	LA B6SP-DBEA-24-1-140-R33-Z-XX	LA B6SP-DBEA-24-1-Z-XX	
	Q65111A8825	LA B6SP-DBEB-24-K3R3-140-R33-Z-XX	LA B6SP-DBEB-24-K3R3-Z-XX	
	Q65112A0883	LA B6SP-EAFA-24-1-140-R33-Z-HE	LA B6SP-EAFA-24-1-Z-HE	
	Q65112A0884	LA B6SP-EAFA-23-G3U3-140-R33-Z-HE	LA B6SP-EAFA-23-G3U3-HE	
	Q65112A1389	LA B6SP-EAEB-24-G3U3-140-R33-Z-XX	LA B6SP-EAEB-24-G3U3-Z-XX	
LR B6SP	Q65111A3309	LR B6SP-CADB-1-1-140-R33-Z	LR B6SP-CADB-1-1	
	Q65111A4221	LR B6SP-CBDB-P1-1-140-R33-Z-XX	LR B6SP-CBDB-P1-1-Z-XX	
LS B6SP	Q65111A3293	LS B6SP-CADB-1-1-140-R33-Z	LS B6SP-CADB-1-1	
	Q65111A4044	LS B6SP-CBDB-1-1-140-R33-Z	LS B6SP-CBDB-1-1-L-Z	
	Q65111A5367	LS B6SP-DAEA-1-1-140-R33-Z-BAY	LS B6SP-DAEA-1-1-Z-BAY	
	Q65111A5754	LS B6SP-DAEA-1-1-140-R33-Z-VAR	LS B6SP-DAEA-1-1-Z-VAR	

<i>Product</i>	<i>QNumber</i>	<i>QNumber Description</i>	<i>Part Number</i>
LS B6SP	Q65111A5802	LS B6SP-DAEA-1-1-140-R33-Z-AL	LS B6SP-DAEA-1-1-Z-AL
	Q65111A7400	LS B6SP-DBEA-1-1-140-R33-Z-HE	LS B6SP-DBEA-1-L-Z-HE
	Q65111A7497	LS B6SP-DAEA-1-1-140-R33-Z	LS B6SP-DAEA-1-1-L-Z
	Q65111A9978	LS B6SP-CBDB-D1-G3U3-140-R33-Z-HE	LS B6SP-CBDB-D1-G3U3-Z-HE
	Q65112A0721	LS B6SP-DAEA-1-1-140-R33-Z-HE	LS B6SP-DAEA-1-1-Z-HE
	Q65112A0722	LS B6SP-CBDB-1-1-140-R33-Z-HE	LS B6SP-CBDB-1-1-Z-HE