3.2" Front Light Panel

12222-xx | Product Data Sheet | 2018

Overview

Mechanical

The FLEx Front Light Panel optical film is designed to laminate to the front surface of Sharp reflective display (LS032B7DD02) to provide high quality on-demand display lighting. This thin plastic panel incorporates only a single LED which enables product designers to develop ultra-thin devices and minimize battery use.

- One low-power LED (included in Front Light)
- Over 80x less power compared to traditional backlighting •
- 0.05 mm thick FLEx film is over 5x thinner than alternative lightguides

29.4

For more information: WEB flexlighting.com CONTACT flexlighting.com/contact PHONE 773-295-0305

FLEx



1.5 5.4 2.04 Flexible film allows for different placement options for the light source (examples below) 13.6 Ţ DETAIL A 77.5 .92 All dimensions in mm 12222-03 **UNDER DISPLAY** NEGATIVE CONTACT (-) 3.32 1.00 PITCH

2.49

.80 2X

DETAIL A (TYP)

3.77

12222-06 PRELIMINARY

12222-01

12222-03

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POSITIVE CONTACT (+)

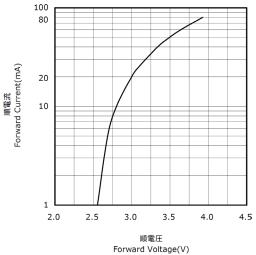
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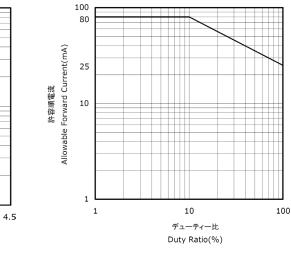
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12222-xx | Product Data Sheet | 2018

Electrical

ltem	Symbol	Typical	Absolute Max	Unit
Forward Current	I _F	10	25	mA
Pulse Forward Current	I _{. FP}		80	mA
Reverse Voltage	V _R		5	V





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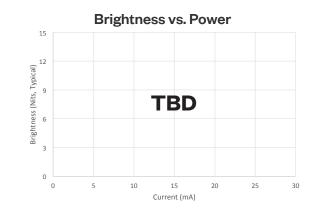
FLEx

Example ZIF Connectors:

- Molex 503480-0400
- Molex 52745-0497
- Molex 54550-0471
- Molex 54548-0471 (bottom)
- Molex 505110-0492

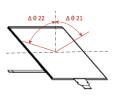
Optical (PRELIMINARY)

3.2" Sharp + Front Light (12222-06)								
ltem		Symbol	TYP.	Unit	Remark			
Viewing Angle CR >2	V	Θ 11 Θ 12		° (Degree)	[Remark 1]			
	Н	Θ 21 Θ 22		° (Degree)				
Contrast Ratio	Front light ON	CR	9		[Remark 2]			



Remark 1: Viewing Angle





Remark 2: Definition of Contrast Ratio

 $Contrast Ratio (CR) = \frac{Reflection intensity in white display}{Reflection intensity in black display}$

Measurements taken with a Minolta Chroma Meter CS-100 at a 17" view distance

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