## 2.7" (Color) Front Light Panel

12380-xx | Product Data Sheet | 2018

### Overview

The **FLEx Front Light Panel** optical film is designed to laminate to the front surface of **JDI reflective display (LPM027M128B)** 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

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

FLEx

### 4.56 -33.0 Flexible film allows for different placement options 2.83 2.3 for the light source (examples below) 4.9 13.2 -DETAIL A 64.1 1.62 12380-01 All dimensions in mm 12380-03 12380-03 UNDER DISPLAY NEGATIVE CONTACT (-) 3.32 12380-06 1.00 PITCH PRELIMINARY 2.49 POSITIVE CONTACT (+) - .80 2X DETAIL A (TYP)

### Mechanical

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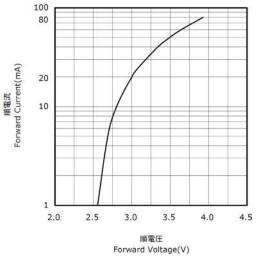
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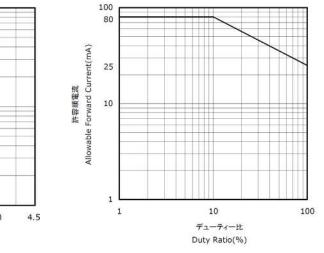
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### Electrical

ltem	Symbol	Typical	Absolute Max	Unit
Forward Current	I <sub>F</sub>	5	25	mA
Pulse Forward Current	l FP		80	mA
Reverse Voltage	V <sub>R</sub>		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

2.7" JDI + Front Light (12380-01)								
ltem		Symbol	TYP.	Unit	Remark			
Viewing Angle CR >2	V	Θ 11 Θ 12	65 65	° (Degree)	[Remark 1]			
	Н	Θ 21 Θ 22	30 40	° (Degree)				
Contrast Ratio	Front light ON	CR	14		[Remark 2]			



Remark 1: Viewing Angle



Remark 2: Definition of Contrast Ratio

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



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