



Endicott Research Group, Inc.

2601 Wayne St., Endicott, NY 13760

607-754-9187 Fax 607-754-9255

http://www.ergpower.com

# SF2R4077CHF



## Specifications and Applications Information

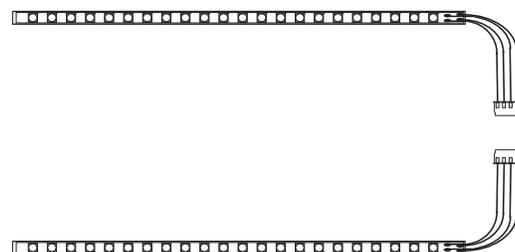
04/24/12

### Smart Force LED Backlight Unit

The ERG *Smart Force Series* of LED backlight units are specifically designed for applications which require wide dimming and LCD brightness stability. The SF2R4077CHF is designed to provide backlighting for the Sharp LQ104V1DG21 display.

Designed, manufactured and supported within the USA, the SFR features:

- ✓ Custom rails for specific LCDs
- ✓ High dimming ratio
- ✓ Set of two rails: top and bottom
- ✓ One year warranty



Components are shown for reference only. Actual product may differ from that shown.

#### Connector

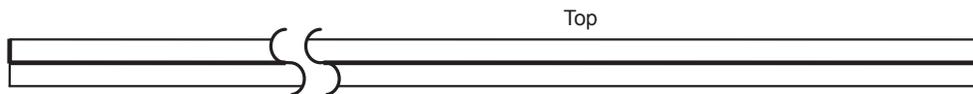
##### Input Connector

Molex J1  
51021-0400

- J1-1 Cathode 1
- J1-2 Anode 1
- J1-3 Cathode 2
- J1-4 Anode 2

#### Package Configuration

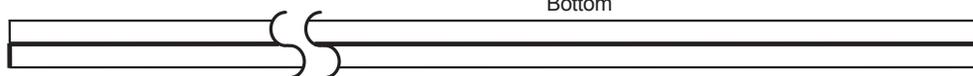
(shown without wires)



Top



Side



Bottom



Components are shown for reference only. Actual product may differ from that shown.

**Absolute Maximum Ratings**

Rating	Symbol	Value	Units
Forward Current <sup>(1)</sup>	$I_F$	400	mA
Component Surface Temperature	$T_s$	-40 to +130	°C
Storage Temperature	$T_{stg}$	-40 to +125	°C

**Maximum Recommended Operating Conditions <sup>(2)</sup>**

Rating	Symbol	Value	Units
Forward Current <sup>(3)</sup>	$I_F$	200	mA
Component Surface Temperature	$T_s$	-40 to +125	°C

**Electrical Characteristics**

Unless otherwise noted  $I_F = 350$  mA dc and  $T_a = 25^\circ\text{C}$

Characteristic	Symbol	Min	Typ	Max	Units
Number of Strings	-	-	2	-	-
LED Forward Voltage	$V_F$	-	3.8	4.2	V
String voltage	$V_S$	-	41.8	46.2	V

Specifications subject to change without notice.

- (1) Current is specified per string.
- (2) Operation above maximum recommended operating conditions will require additional thermal management actions and will decrease LED lifetime.
- (3) Strings are to be driven with a current source.

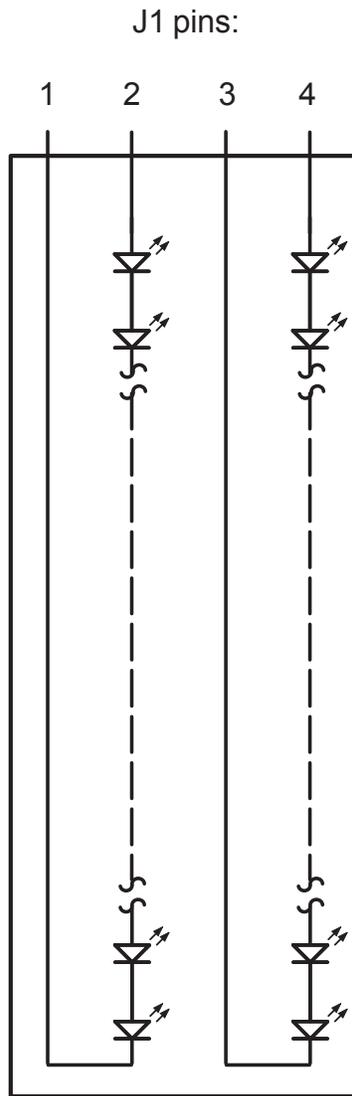


Figure 1  
SFR Connectivity



Endicott Research Group, Inc. (ERG) reserves the right to make changes in circuit design and/or specifications at any time without notice. Accordingly, the reader is cautioned to verify that data sheets are current before placing orders. Information furnished by ERG is believed to be accurate and reliable. However, no responsibility is assumed by ERG for its use.