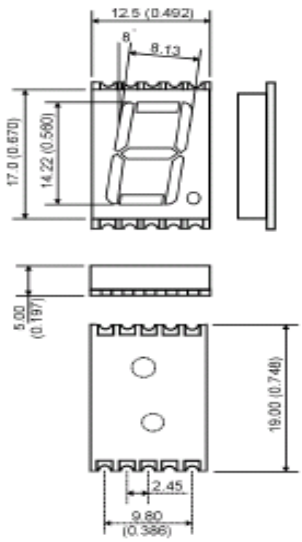
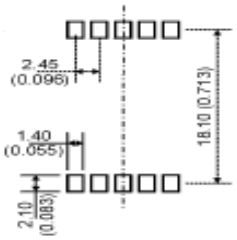
0.56 Inch (14.2mm) 1 Digit
HYBRID AIR-GAP SMD DISPLAY

AlInGaP Red (630nm) FND6H60.SMD, FND6H80.SMD
AlInGaP Red (642nm) FND6R60.SMD, FND6R80.SMD
AlInGaP Yellow FND6Y60.SMD, FND6Y80.SMD
Gap Green FND6G60.SMD, FND6G80.SMD

PRELIMINARY
Subject to Change

PACKAGE DIMENSIONS





Recommended PCB Contact Layout

NOTES:

- Dimensions are in mm (inches)
- Tolerances are +/- 0.25 (0.010) unless otherwise stated.

FEATURES

- Bright Bold Segments
- Common Anode/Cathode
- Low Power Consumption
- Low Current Capability
- Neutral Segments
- Grey Face
- Hybrid Air-Gap
- High Performance
- High Reliability
- Surface Mounting

APPLICATIONS

- Appliances
- Automotive
- Instrumentation
- Process Control

MODELS AVAILABLE

Part Number	Colour	Description	Special
FND6H60.SMD	AlInGaP 630nm	Single Digit, RHDP, Common Anode	Low Current Capability
FND6H80.SMD	AlInGaP 630nm	Single Digit, RHDP, Common Cathode	Low Current Capability
FND6R60.SMD	AlInGaP 642nm	Single Digit, RHDP, Common Anode	Low Current Capability
FND6R80.SMD	AlInGaP 642nm	Single Digit, RHDP, Common Cathode	Low Current Capability
FND6Y60.SMD	AlInGaP Yellow	Single Digit, RHDP, Common Anode	Low Current Capability
FND6Y80.SMD	AlInGaP Yellow	Single Digit, RHDP, Common Cathode	Low Current Capability
FND6G60.SMD	GaP Green	Single Digit, RHDP, Common Anode	Low Current Capability
FND6G80.SMD	GaP Green	Single Digit, RHDP, Common Cathode	Low Current Capability

(For other colour options, contact your local area Sales Manager)

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ABSOLUTE MAXIMUM RATINGS[1] (T_A = 25°C, unless otherwise specified)

Part Number / Parameter	FND6H60 FND6H80	FND6R60 FND6R80	FND6Y60 FND6Y80	FND6G60 FND6G80	Units
Continuous Forward Current (each segment)	25	25	25	25	mA
Peak Forward Current (F = 10KHz, D/F = 1/10)	100	100	100	100	mA
Power Dissipation (P_D)	60	60	60	60	mW
***Derate Linearly from 25°C**	0.36	0.36	0.36	0.36	mW
Reverse Voltage per Die					5 Volts
Operating and Storage Temperature Range					-40°C to +85°C
Lead soldering time (1/16 inch from standoffs)					5 seconds @ 230°C

ELECTRO-OPTICAL CHARACTERISTICS[1] (T_A = 25°C, unless otherwise specified)

Part Number / Parameter	FND6H60 FND6H80	FND6R60 FND6R80	FND6Y60 FND6Y80	FND6G60 FND6G80	Units	Test Condition
Luminous intensity[2] (I_V)						
Minimum (Standard Current)	4000	3000	6000	1000	ucd	I_F = 10mA
Typical (Standard Current)	6000	4000	8000	1800	ucd	I_F = 10mA
Minimum (Low Current)	400	400	400	400	ucd	I_F = 2mA
Typical (Low Current)	800	800	800	700	ucd	I_F = 2mA
Forward Voltage (V_F)						
Typical (Standard Current)	2.05	2.05	2.05	2.05	Volts	I_F = 10mA
Maximum (Standard Current)	2.40	2.40	2.40	2.45	Volts	I_F = 10mA
Typical (Low Current)	1.80	1.80	1.80	1.80	Volts	I_F = 2mA
Maximum (Low Current)	2.20	2.20	2.20	2.20	Volts	I_F = 2mA
Peak Wavelength	632	639	591	565	nm	I_F = 10mA
Dominant Wavelength	624	631	585	570	nm	I_F = 10mA
Spectral Line 1/2 Width	20	20	20	20	nm	I_F = 10mA
Reverse B[3].Voltage (V_R)	5	5	5	5	Volts	I_R = 100uA

NOTES:
(1) Data per individual LED element
(2) Luminous intensity (ucd) = average light output per segment
(3) B = breakdown

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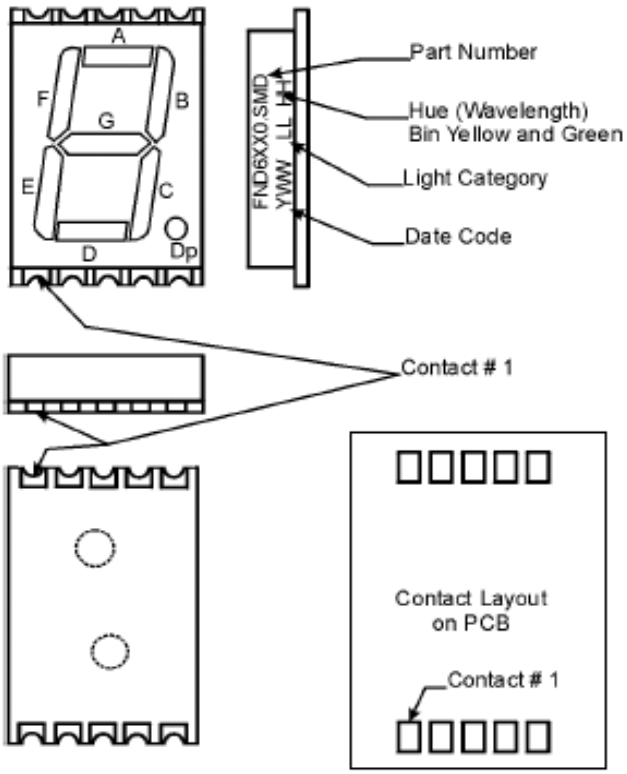
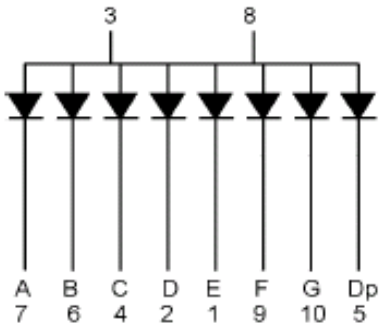
HYBRID AIR-GAP SMD DISPLAY

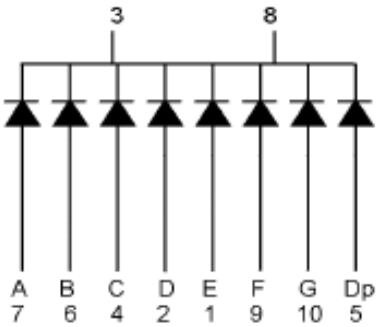
PIN ORIENTATION, SEGMENT IDENTIFICATION, AND PRODUCT MARKING



SCHEMATICS



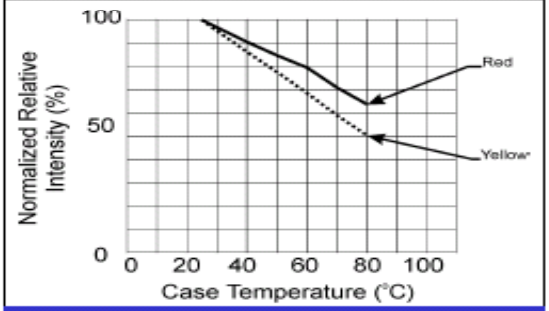
FND6X60.SMD
Common Anode



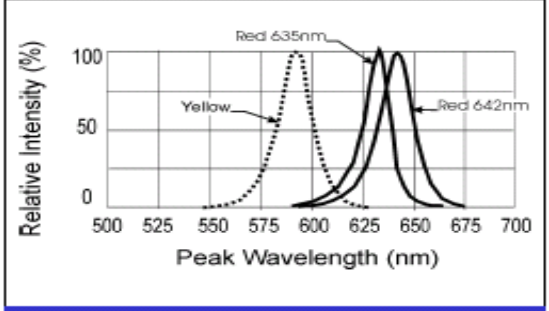
FND6X80.SMD
Common Cathode

0.56 Inch (14.2mm) 1 Digit
HYBRID AIR-GAP SMD DISPLAY

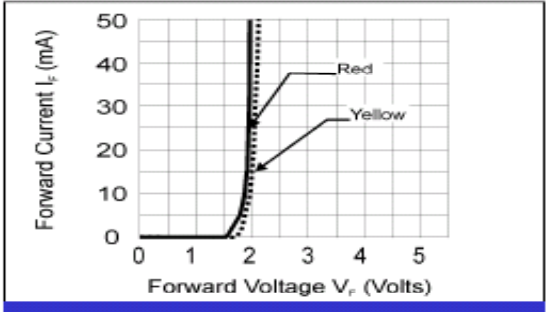
GRAPHICAL DATA AlInGaP 630nm (T_A = 25°C, unless otherwise specified)



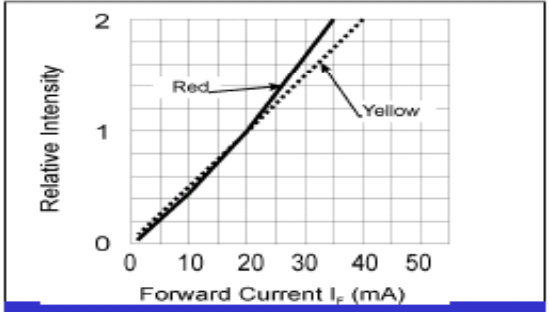
Relative Intensity vs Case Temp.



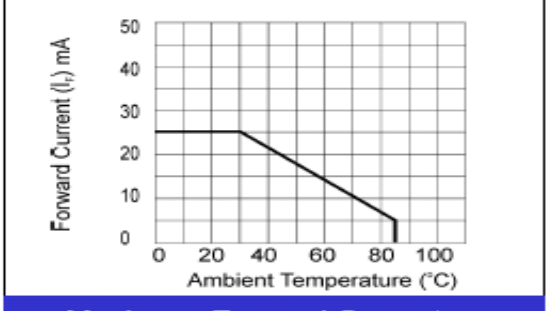
Spectral Response



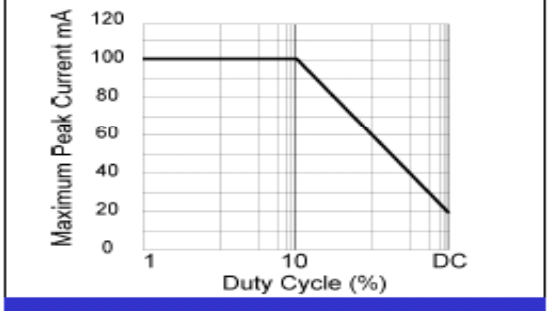
Forward Current vs Forward Voltage



Luminous Intensity vs Duty Cycle



Maximum Forward Current vs Ambient Temperature

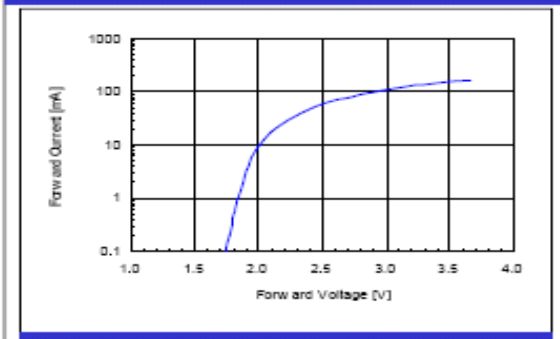


Maximum Peak Current vs Duty Cycle

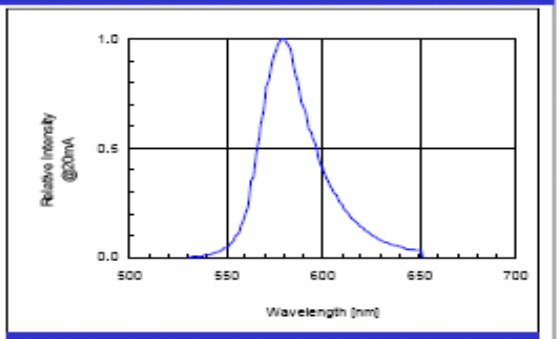
EVERLIGHT

0.56 Inch (14.2mm) 1 Digit
HYBRID AIR-GAP SMD DISPLAY

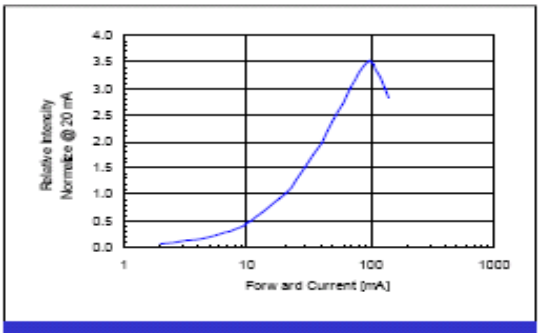
GRAPHICAL DATA GaP Green (T_A = 25°C, unless otherwise specified)



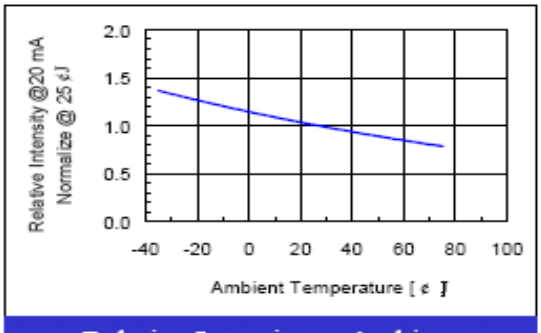
Forward Current vs Forward Voltage



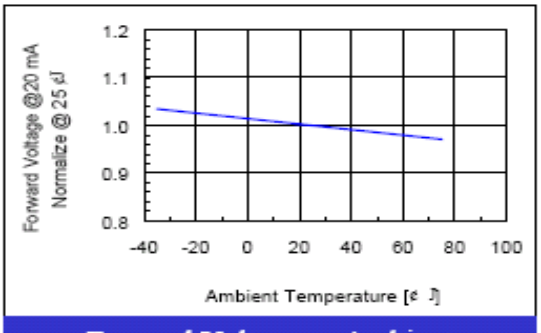
Spectral Response



Relative Intensity vs Forward Current



Relative Intensity vs Ambient Temperature



Forward Voltage vs Ambient Temperature

IR Reflow Maximum Temperature/Duration Profile