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Jameco Part Number 664341

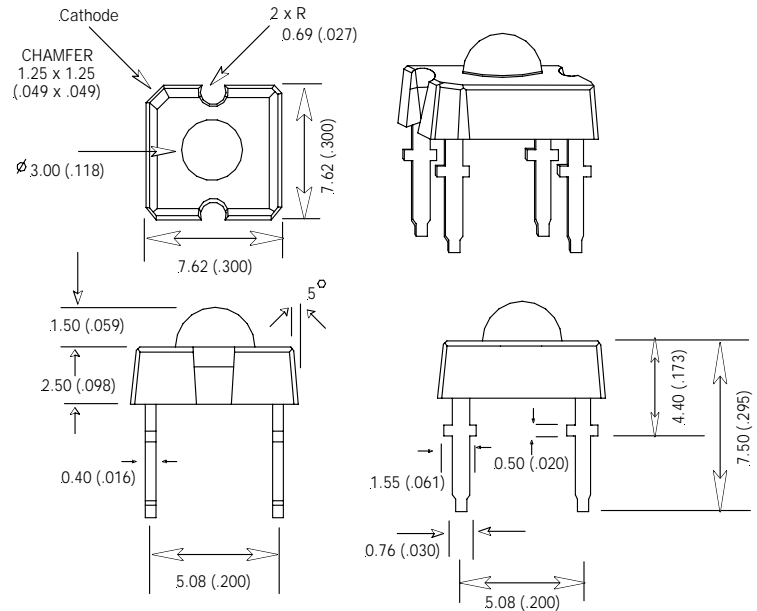


MCDL-1870XX (7.62 MM x 7.62 MM PIRANHA 40°)

Lens Color: **Water Clear**
 Lens Dimension: **3 mm Diameter Dome**

Features

- High Flux Output
- Designed for High Current operation
- Low Thermal Resistance
- Low Profile
- Reliable
- Packaged in Tubes for use with Automatic Insertion Equipment



Absolute Maximum Ratings at $T_A = 25^\circ\text{C}$

Parameter			Unit
Reverse Voltage	5		V
Operation Temperature	-20°	+80°	°C
LED Junction Temperature	125°		°C
Storage Temperature	-55°	+100°	°C
Solder DIP (5 seconds, 1.6 mm from body) Temperature	260°	±5°	°C

Electrical Characteristics At $T_a = 25^\circ\text{C}$

Part Number	Emitted Color		Peak Wavelength	V_F	Viewing Angle 2θ	I_V (If - 40mA) MCD	
	Chip	Color				Min	Typ
MCDL-1870UEC-TL	GaAlInP	HER	625	2.0	40	3,800	4,200
MCDL-1870UYC-TL	GaAlInP	Amber	590	2.0	40	3,800	4,200
MCDL-1870UBC-TL	InGaN	Blue	470	3.5	40	1,900	2,100
MCDL-1870UBC-15C	InGaN	Blue	470	3.5	40	2,300	2,500
MCDL-1870UGC-TL	InGaN	Pure Green	525	3.5	30	7,200	7,500
MCDL-1870UWC-15C	InGaN	Ultra White	**	3.5	40	6,000	6,500

Notes:

- All Dimensions are in millimeters (inches).
- Tolerance is $\pm 0.25\text{mm}$ (0.010") unless otherwise specified.
- Lead spacing is measured where the leads emerge from the package.
- Specifications are subject to change without notice.



1,000 Hour Degradation

MCDL-1870UYC-TL

<u>Hours</u>	<u>Intensity (%)</u>
0	100
50	100
100	98
200	97
400	95
600	93
800	91
1000	89

Testing Conditions:

- 1) Time: 1,000 hrs.
- 2) Temp.: 25C
- 3) Burn-In : 40mA DC
- 4) Testing: 40mA DC
- 5) Sample: 100 pcs

10,000 Hour Degradation

MCDL-1870UYC-TL

<u>Hours</u>	<u>Intensity (%)</u>
0	100
1,000	89
2,000	89
3,000	87
4,000	86
6,000	86
8,000	83
10,000	80

Testing Conditions:

- 1) Time: 1,000 hrs.
- 2) Temp.: 25C
- 3) Burn-In : 40mA DC
- 4) Testing: 40mA DC
- 5) Sample: 100 pcs

High Temperature Operation Life

MCDL-1870UYC-TL

<u>Hours</u>	<u>Intensity (%)</u>
0	100
1,000	85
2,000	83
3,000	82
4,000	81
6,000	80
8,000	79
10,000	75

Testing Conditions:

- 1) Time: 10,000 hrs.
- 2) Temp.: 60C @ 85% R.H.
- 3) Burn-In : 40mA DC
- 4) Testing: 40mA DC
- 5) Sample: 100 pcs



1,000 Hour Degradation

MCDL-1870UBC-TL

<u>Hours</u>	<u>Intensity (%)</u>
0	100
50	100
100	98
200	97
400	95
600	93
800	91
1000	89

Testing Conditions:

- 1) Time: 1,000 hrs.
- 2) Temp.: 25C
- 3) Burn-In : 25mA DC
- 4) Testing: 25mA DC
- 5) Sample: 100 pcs

10,000 Hour Degradation

MCDL-1870UBC-TL

<u>Hours</u>	<u>Intensity (%)</u>
0	100
1,000	89
2,000	88
3,000	85
4,000	83
6,000	83
8,000	82
10,000	80

Testing Conditions:

- 1) Time: 1,000 hrs.
- 2) Temp.: 25C
- 3) Burn-In : 25mA DC
- 4) Testing: 25mA DC
- 5) Sample: 100 pcs

High Temperature Operation Life

MCDL-1870UBC-TL

<u>Hours</u>	<u>Intensity (%)</u>
0	100
1,000	84
2,000	83
3,000	82
4,000	81
6,000	80
8,000	79
10,000	75

Testing Conditions:

- 1) Time: 10,000 hrs.
- 2) Temp.: 60C @ 85% R.H.
- 3) Burn-In : 25mA DC
- 4) Testing: 25mA DC
- 5) Sample: 100 pcs