

**FEATURES**

- Low cost
- 660 nm +/- 3 nm
- 4 drive line

**DESCRIPTION:**

The PDI-E839 is a four drive line three emitter oximeter component. The 880, 660 GaAlAs and 940 nm GaAs emitters are high power LPE grown. The metalized ceramic has clear epoxy encapsulation with top side solder pads. These components are ideal for O.E.M. and repair replacements of oximeter probe assemblies.

**APPLICATIONS**

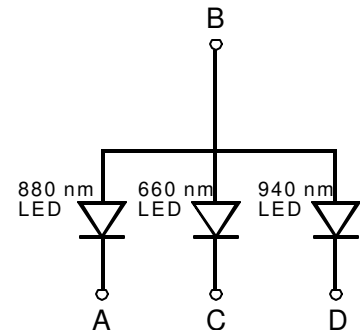
- Oximeter probes
- Finger clamps
- Reusable probes

**ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)**

SYMBOL	PARAMETER	MIN	MAX	UNITS
P <sub>d</sub>	Power Dissipation I <sub>F</sub> =20 mA		250	mW
I <sub>FP</sub>	Continuous Forward Current		30	mA
I <sub>FP</sub>	Peak Forward Current		200	mA
V <sub>R</sub>	Reverse Voltage		4	V
T <sub>o</sub> & T <sub>s</sub>	Storage & Operating Temp	-40	+80	°C
TS	Soldering Temperature*		240	°C

\*For 3 seconds max using a heat sink.

**SCHEMATIC**



**ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C unless otherwise noted)**

SYMBOL	CHARACTERISTIC	TEST COND	880 nm			660 nm			940 nm			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
P <sub>o</sub>	Radiant Flux**	I <sub>F</sub> = 20 mA	1.8	2.0		1.8	2.4		1.2	1.8		mW
I <sub>v</sub>	Luminous Intensity**	I <sub>F</sub> = 20 mA				20	30					mcd
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 20 mA		1.5	1.7		1.8	2.4		1.3	1.5	V
V <sub>R</sub>	Reverse breakdown	I <sub>F</sub> = 10 μA	5			5			5			V
λ <sub>p</sub>	Peak Wavelength	I <sub>F</sub> = 20 mA	870	880	890	658	661	664	930	904	950	nm
Δλ	Spectral Bandwidth	I <sub>F</sub> = 20 mA		50			25			50		nm
T <sub>r</sub>	Rise Time	I <sub>F</sub> = 20 mA		0.8			0.8			0.8		μS
T <sub>r</sub>	Fall Time	I <sub>F</sub> = 20 mA		0.8			0.8			0.8		μS

\*\*Bare chip measured packaged in a flat TO-18/TO-46 header without resin coating.

Information in this technical data sheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice. [FORM NO. 100-PDI-E839 REV A]