

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Product No: MTE1081C

## Peak Emission Wavelength: 810nm

The MTE1081C consists of a 810nm high output infrared die in a water-clear 3mm plastic molded package. Custom package solutions and sorting are available.

## **FEATURES**

- > High Output Power
- > Compact
- > High Reliability

## **APPLICATIONS**

- > Optical Switches & Sensors
- > Optical Position Sensing / Security Systems
- > Medical Applications / Optical Communication
- > Currency Validation / Light Curtain



Ratings (Ta	=25°C)		Pb.
SYMBOL	RATINGS	UNIT	lead-free ROHS
IF	60	mA	
IFP	0.5	A	
VR	5	V	
PD	120	mW	
Topr	-20 ~ +85	°C	
Tstg	-30 ~ +100	°C	
Tj	100	°C	
Tls	260	°C	
	SYMBOL  IF  IFP  VR  PD  Topr  Tstg  Tj	IF 60 IFP 0.5 VR 5 PD 120 Topr -20 ~ +85 Tstg -30 ~ +100 Tj 100	SYMBOL         RATINGS         UNIT           IF         60         mA           IFP         0.5         A           VR         5         V           PD         120         mW           Topr         -20 ~ +85         °C           Tstg         -30 ~ +100         °C           Tj         100         °C

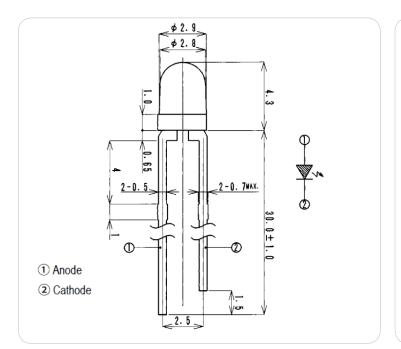
<sup>\*1:</sup> Tw=10 $\mu$ sec, T=10 $\mu$ sec. \*2: Time 5 Sec max, Position: Up to 3mm from the body.

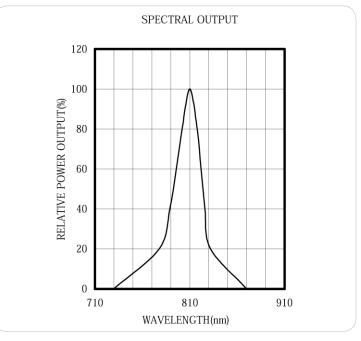
Electrical & Optic	al Characteristics	$(Ta = 25^{\circ}C)$
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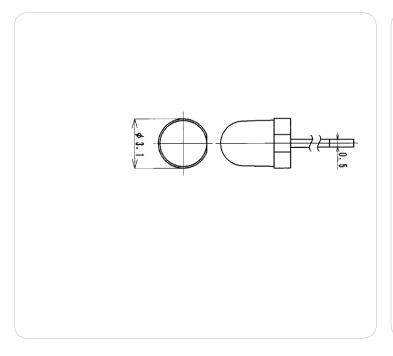
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ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=20mA		6.5		mW
Forward Voltage	VF	IF=20mA		1.4	1.9	V
Reverse Current	IR	VR=5V			100	μΑ
Peak Emission Wavelength	λр	IF=20mA		810		nm
Spectral Line Half Width	Δλ	IF=20mA		30		nm
Half Intensity Beam Angle	θ	IF=20mA		±25		deg
Junction Capacitance	Cj	1MHz, V=0V		60		рF
Temperature Coefficient of PO	P/T	IF=10mA		-0.6		%/ºC
Temperature Coefficient of VF	V/T	IF=10mA		-2.0		mV/°C

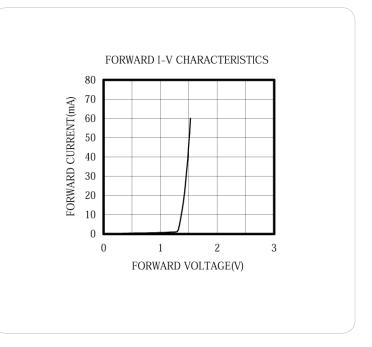
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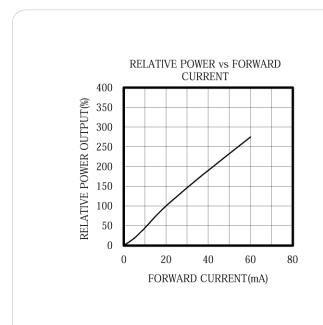


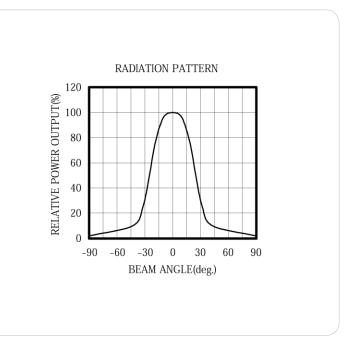


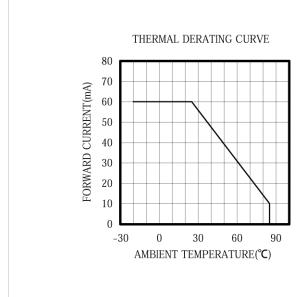


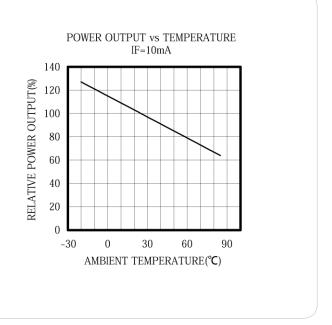
Unit: mm, Tolerance: ±0.2



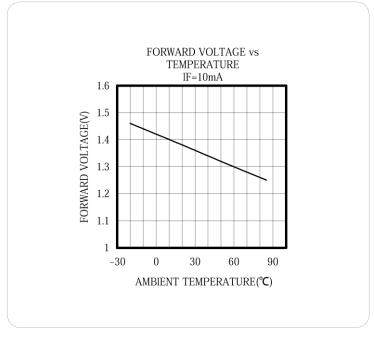


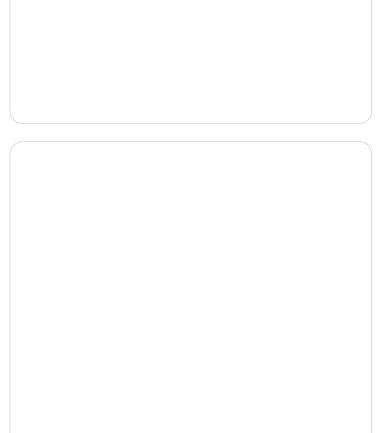






Product No: MTE1081C





The information contained herein is subject to change without notice.