

Peak Emission Wavelength: 810nm

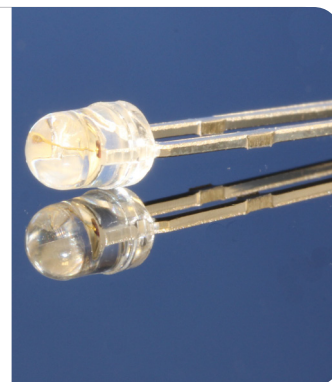
The MTE1081C consists of a 810nm high output infrared die in a water-clear 3mm plastic molded package. Custom package solutions and sorting are available.

FEATURES

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

APPLICATIONS

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



Absolute Maximum Ratings (Ta=25°C)

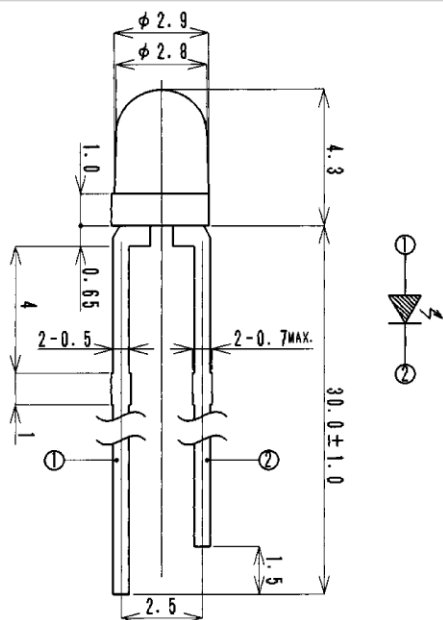


ITEMS	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	60	mA
Forward Current (Pulse)*1	IFP	0.5	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	120	mW
Operating Temperature Range	Topr	-20 ~ +85	°C
Storage Temperature Range	Tstg	-30 ~ +100	°C
Junction Temperature	Tj	100	°C
Lead Soldering Temperature*2	Tls	260	°C

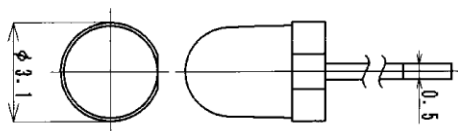
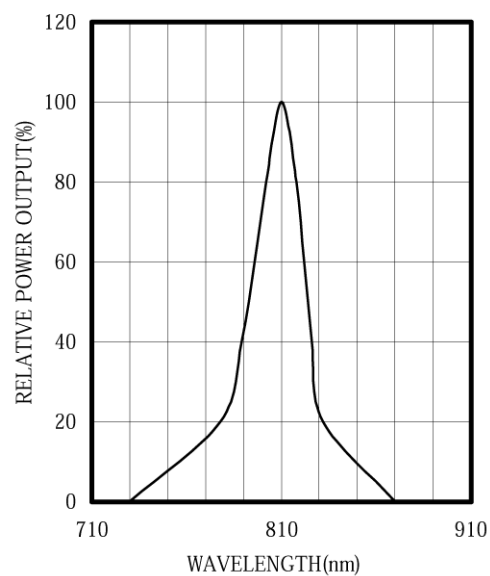
*1: Tw=10μsec, T=10msec. *2: Time 5 Sec max, Position: Up to 3mm from the body.

Electrical & Optical Characteristics (Ta = 25°C)

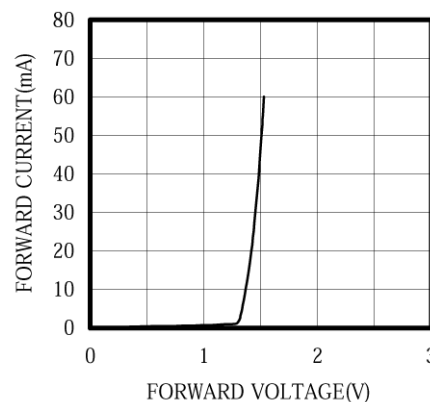
ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=20mA	--	6.5	--	mW
Forward Voltage	VF	IF=20mA	--	1.4	1.9	V
Reverse Current	IR	VR=5V	--	--	100	μA
Peak Emission Wavelength	λp	IF=20mA	--	810	--	nm
Spectral Line Half Width	Δλ	IF=20mA	--	30	--	nm
Half Intensity Beam Angle	Θ	IF=20mA	--	±25	--	deg
Junction Capacitance	Cj	1MHz, V=0V	--	60	--	pF
Temperature Coefficient of PO	P/T	IF=10mA	--	-0.6	--	%/°C
Temperature Coefficient of VF	V/T	IF=10mA	--	-2.0	--	mV/°C
Switching Time	Tr, Tf	IF=100mA	--	30	--	ns



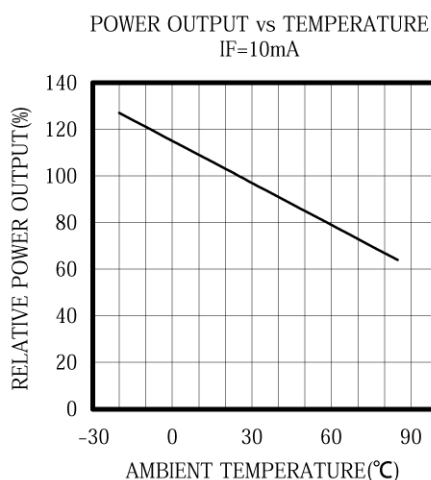
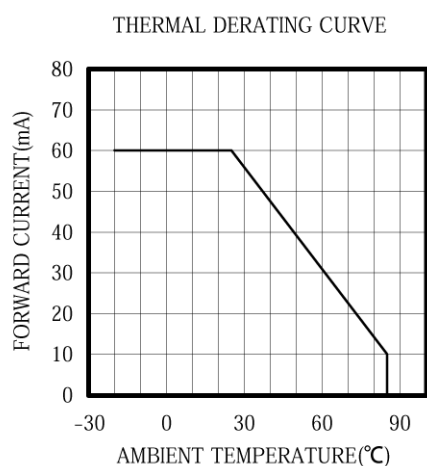
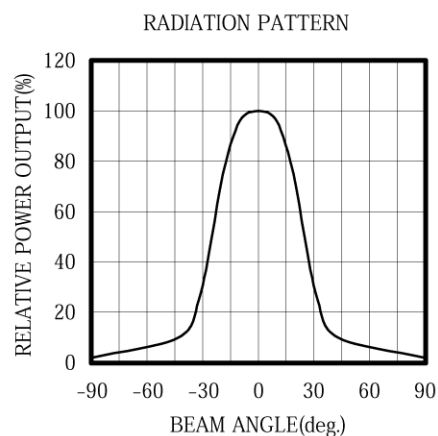
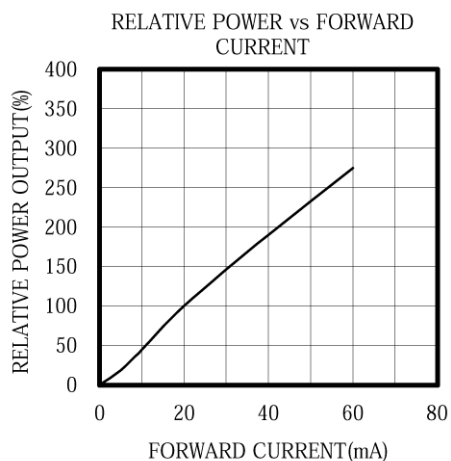
SPECTRAL OUTPUT

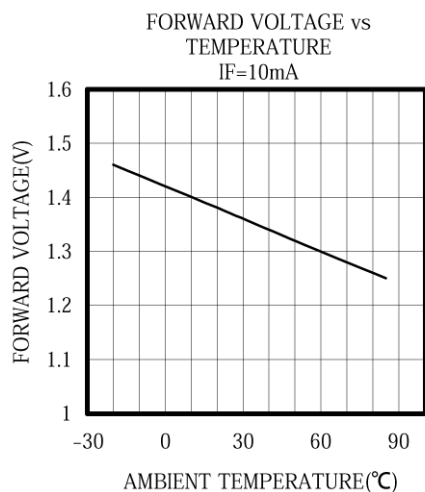


FORWARD I-V CHARACTERISTICS



Unit: mm, Tolerance: ± 0.2





Mouser Electronics

Authorized Distributor

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