



OPTO TECHNOLOGY

T-41-13

GaAlAs INFRARED EMITTER

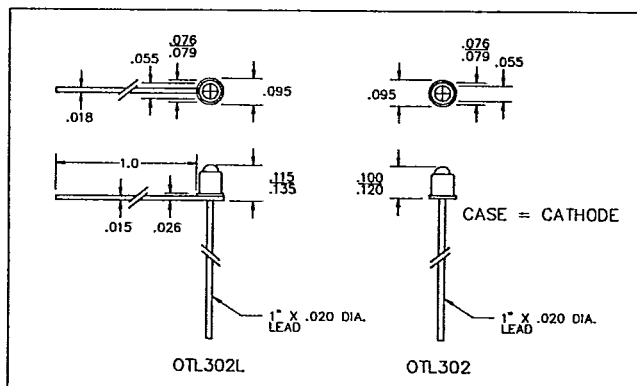
TYPE OTL 302

Features

- Miniature GaAlAs emitter
- Hermetically sealed package
- High power output

Description

Opto Technology's OTL 302 emitters feature high power GaAlAs LEDs mounted in a miniature hermetic package. With a peak wavelength of 880 nanometers, overall system efficiency is increased when used with silicon detectors. These devices can be mounted into a housing or soldered directly into a printed circuit board. Special screening of these devices is available upon request.

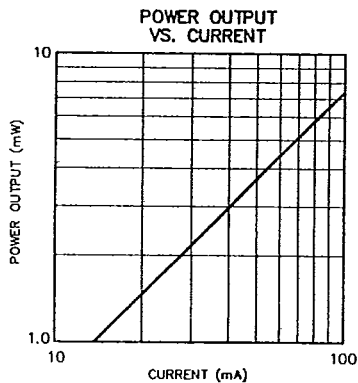


Absolute Maximum Ratings⁽³⁾

Reverse Voltage	5 V
Continuous Forward Current	75 mA
Peak Forward Current (PW = 10 μ s; 100 Hz)	2.5 A
Power Dissipation	135 mW ⁽¹⁾
Storage Temperature Range	-65°C to +150°C
Operating Temperature Range	-55°C to +125°C
Lead Soldering Temperature (for 5 sec. with soldering iron)	240°C ⁽²⁾

Notes:

- (1) Derate 1.2 mW/°C above 25°C.
- (2) RMA flux is recommended. Duration can be extended for 10 sec. max. when wave soldering.
- (3) T_A = 25°C unless otherwise noted.



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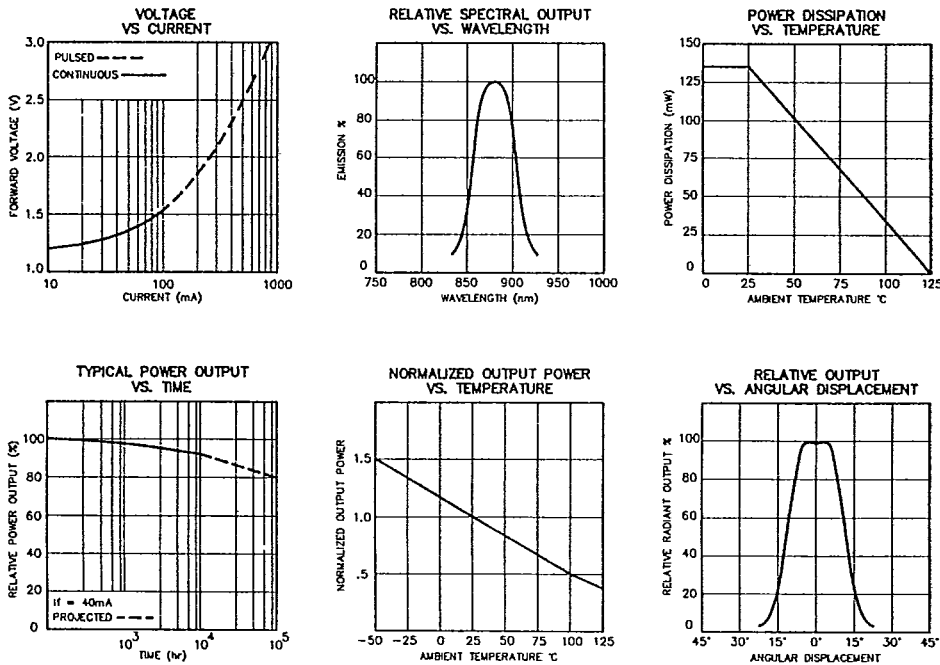
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Electrical Characteristics: (25°C)

INFRARED EMITTER		SYMBOL	MIN.	TYP.	MAX.	UNITS
Total Power Output $I_F = 75\text{mA}$ P_O			2.5			mW
RADIANT INTENSITY $I_F = 50\text{mA}$, .01 Sr	OTL 302-1	I_E	9			mW/Sr
	OTL 302-2		11		16	
	OTL 302-3		14			
Forward Voltage $I_F = 75\text{mA}$		V_F		1.5	1.8	V
Reverse Current $V_R = 3\text{V}$		I_R			100	μA
Peak Emission Wavelength $I_F = 75\text{mA}$		λ_P		880		nm
Spectral Bandwidth @ 50%		$\Delta\lambda$		50		nm
Spectral Shift with Temperature		$\Delta\lambda/\Delta T$		.3		nm/°C
Half Intensity Beam Angle		Φ_H		± 12		Deg.
Rise Time		t_r		500		nS
Fall Time		t_f		500		nS

EMITTERS

TYPICAL PERFORMANCE CURVES



Opto Technology reserves the right to make changes at any time to improve product design and reliability.