



OPTO TECHNOLOGY

GaAlAs INFRARED EMITTER

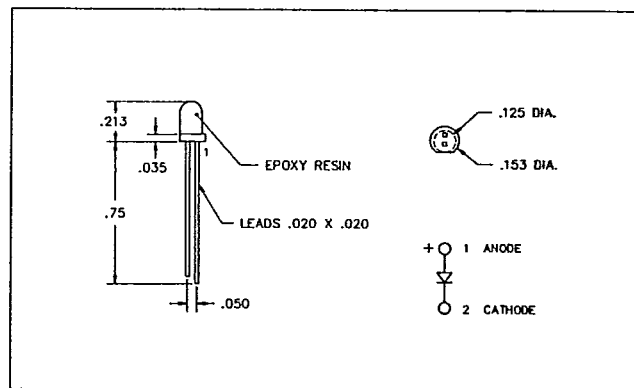
TYPE OTL 313

Features

- Low cost
- Miniature plastic T-1 package
- Mechanically matched to OT 403 phototransistor and OT 413 photodarlington

Description

Opto Technology's OTL 313 emitters feature a high power GaAlAs LED mounted in a low cost T-1 plastic package. With a peak wavelength of 880 nanometers, overall system efficiency is increased when used with silicon detectors. Special screening of these devices available upon request. Consult the factory.



Absolute Maximum Ratings (TA = 25°C unless otherwise specified)

Reverse Voltage	5 V
Continuous Forward Current	50 mA
Peak Forward Current (PW = 10μs; 100 Hz)	3 A
Power Dissipation	100 mW ⁽¹⁾
Storage Temperature Range	-55°C to +100°C
Operating Temperature Range	-55°C to +100°C
Lead Soldering Temperature (for 5 sec. with soldering iron)	240°C ⁽²⁾

Notes:

(1) Derate 1.2 mW/°C above 25°C.

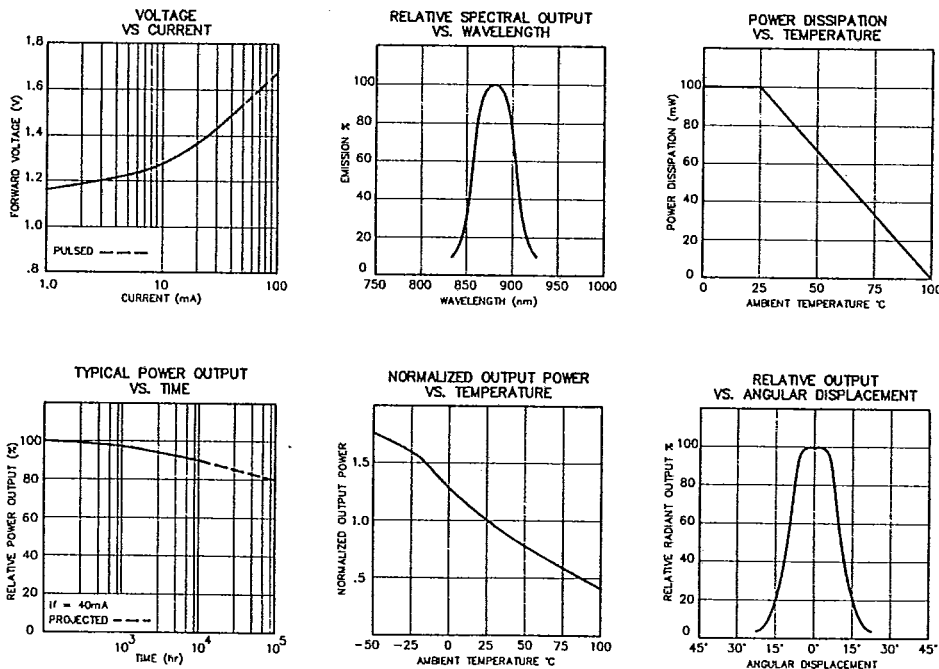
(2) RMA flux is recommended. Duration can be extended for 10 sec. max. when wave soldering.

Electrical Characteristics: (25°C)

INFRARED EMITTER	SYMBOL	MIN.	TYP.	MAX.	UNITS
RADIANT INTENSITY $I_f = 50\text{mA}$, .01 Sr	OTL 313-1	10			mW/Sr
	OTL 313-2	15		30	
	OTL 313-3	20			
Forward Voltage $I_F = 40\text{mA}$	V_F			1.8	V
Reverse Current $V_R = 3\text{V}$	I_R			100	μA
Peak Emission Wavelength $I_F = 20\text{mA}$	λ_P		880		nm
Spectral Bandwidth @ 50%b	$\Delta\lambda$		50		nm
Spectral Shift with Temperature	$\Delta\lambda P/\Delta T$		.2		nm/°C
Half Intensity Beam Angle	ϕ_H		± 10		Deg.
Rise Time $I_F = 20\text{mA}$	t_r		600		nS
Fall Time $I_F = 20\text{mA}$	t_f		250		nS

EMITTERS

TYPICAL PERFORMANCE CURVES



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