

# INFRARED EMITTER

## MTE108CL

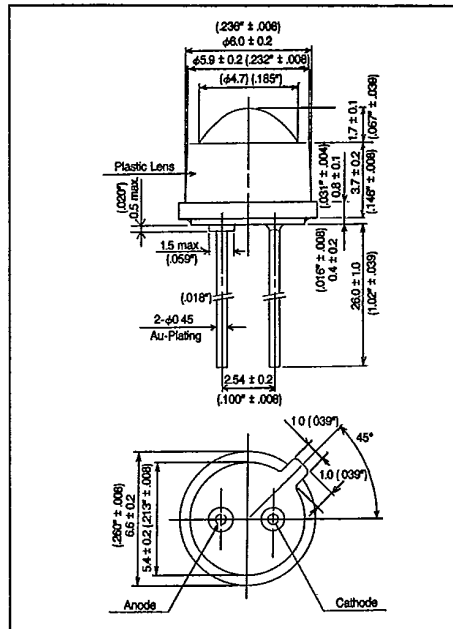
T-41-13

### APPLICATIONS

- ROTARY ENCODER (see graph\*\*)
- BAR CODE SCANNING

### FEATURES

- TO-46 metal can.
- Plastic lens and cover (optimal for superior light uniformity and output).
- Parts shipped individually to avoid scratching/markings lens.
- Fast switching speeds, capable of pulse operation.
- High power output GaAlAs IR die.



### MAXIMUM RATINGS (Ta = 25°C)

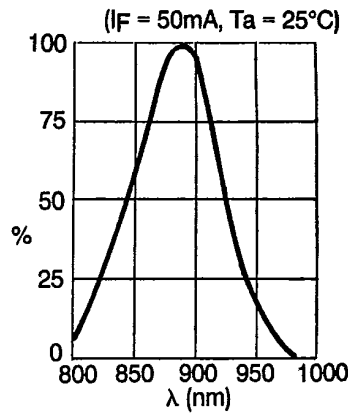
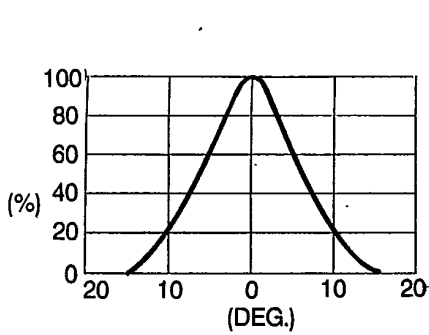
CHARACTERISTIC	SYMBOL	RATING	UNIT
Forward Current	I <sub>F</sub>	100	mA
Reverse Voltage	V <sub>R</sub>	6	V
Power Dissipation	P <sub>D</sub>	180	mW
Peak Pulse Current	I <sub>FP</sub>	2*	A
Operative Temperature Range	T <sub>opr</sub>	-25 ~ 80	°C
Storage Temperature Range	T <sub>stg</sub>	-30 ~ 80	°C

\*Iw 10 μs, T = 1mS.

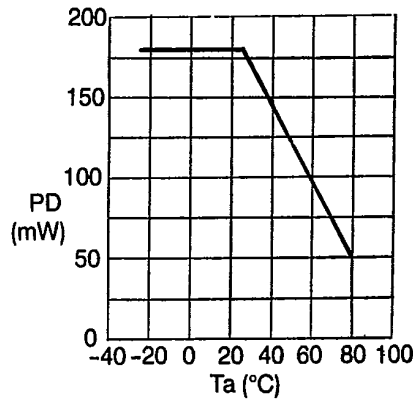
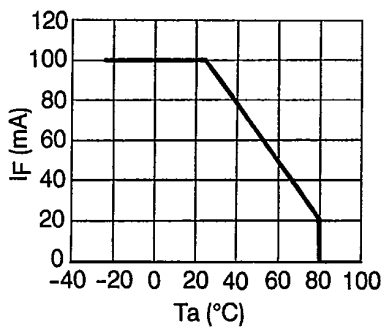
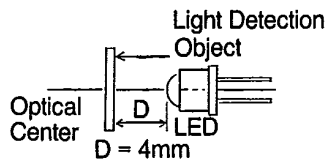
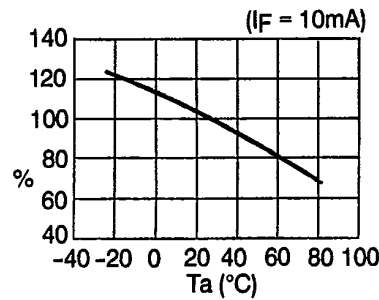
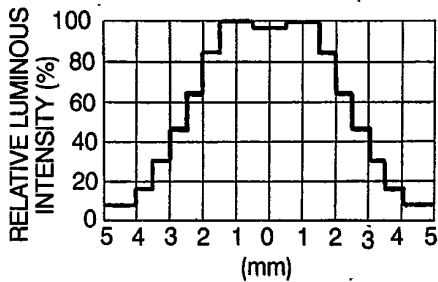
### OPTO-ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX.	UNIT
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =50mA	—	1.35	1.6	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =6V	—	—	10	μA
Peak Wave Length	λ <sub>P</sub>	I <sub>F</sub> =50mA	—	890	—	nm
Viewing Angle	θ		—	12	—	°
Spectral Line Half Width	Δλ	I <sub>F</sub> =50mA	—	80	—	nm
Power Output	P <sub>O</sub>	I <sub>F</sub> =50mA	3.0	6.0	—	mW
Capacitance	C <sub>J</sub>	V <sub>F</sub> =0V, f=1MHz	—	40	—	pf
Switching Speed	T <sub>r</sub>	I <sub>F</sub> = 100mA		500		ns
	T <sub>f</sub>					

# INFRARED EMITTER *T-41-13*



\*\* BRIGHTNESS DISTRIBUTION (D = 4mm)



MARKTECH INTERNATIONAL  
 120 BROADWAY • MENANDS, NY 12204 • (518) 436-5865 • FAX: (518) 436-5877