

# MICRO ELECTRONICS

PIN  
PHOTO  
DIODE

## DESCRIPTION

ML303B is a side on type PIN photodiode with inherent visible light rejective filter epoxy encapsulation. It features high sensitivity and small junction capacitance make it possible to operate at high frequency application. This device is most suitable for remote controls of TVs, audio sets, air-conditioners, cine projectors and so on.

## ABSOLUTE MAXIMUM RATINGS

Forward Current

Reverse Voltage

Power Dissipation @ Ta=25°C

Operating & Storage Temperature Range

Storage Temperature

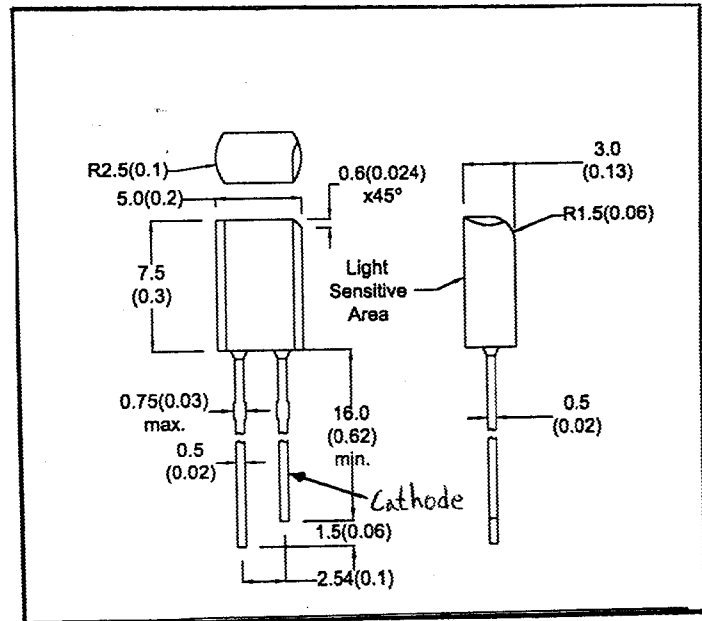
100mA

32V

150mW

-20 to +90°C

-30 to +100°C



## ELECTRO-OPTICAL CHARACTERISTICS (Ta=25°C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	CONDITIONS
Dark Current	ID		5	30	nA	VR=10V H=0mW/cm <sup>2</sup>
Sensitivity	S		50		nA/lx	VR=5V H=5mW/cm <sup>2</sup> Ct=2870°K
Capacitance	Ct		25		pF	VR=3V H=0mW/cm <sup>2</sup> f=1MHz
Open Circuit Voltage	Voc		350		mV	H=5mW/cm <sup>2</sup> Ct=2870°K
Short Circuit Current	Isc		75		μA	H=5mW/cm <sup>2</sup> Ct=2870°K
Turn-On Time	Ton		50		nS	VR=10V RL=1KΩ
Turn-Off Time	Toff		50		nS	VR=10V RL=1KΩ
Peak Wavelength	λp		880		nm	VR=5V



MICRO ELECTRONICS LTD.

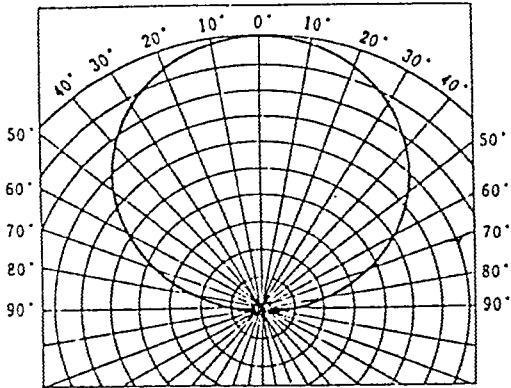
38, Hung To Road, Microtron Building, Kwun Tong, Kowloon, Hong Kong.

Kwun Tong P.O. Box 69477 Hong Kong. Fax No. 2341 0321 Telex:43510 Micro Hx. Tel: 2343

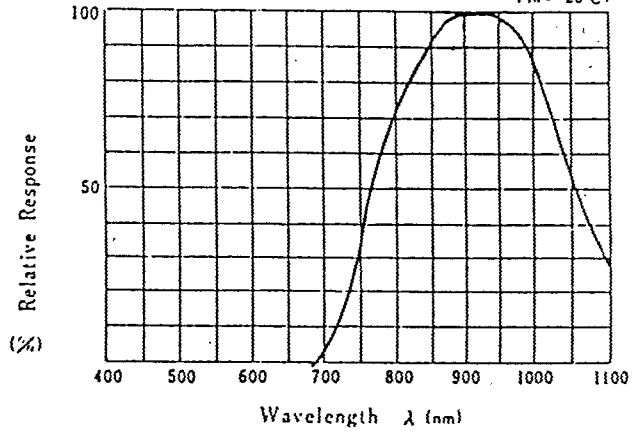
Rev A

# ML303B TYPICAL CHARACTERISTICS

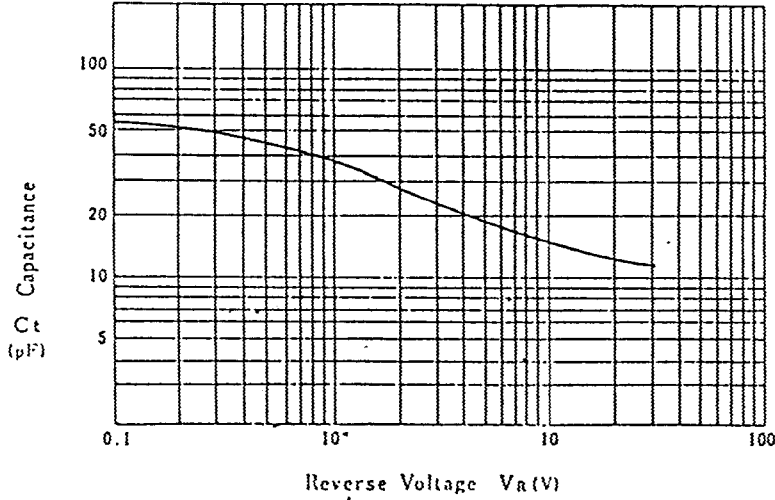
RELATIVE ANGULAR RESPONSE  
( $T_a = 25^\circ\text{C}$ )



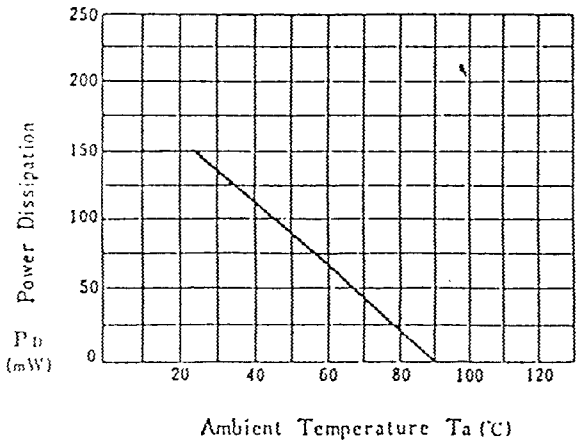
SPECTRAL RESPONSE  
( $T_a = 25^\circ\text{C}$ )



CAPACITANCE VS REVERSE VOLTAGE  
( $T_a = 25^\circ\text{C}$ )



POWER DISSIPATION VS TEMPERATURE



RELATIVE SENSITIVITY VS TEMPERATURE

