

PD100Mx0MP Series

■ Features

1. Compact, thin type (3.0×1.5×2.2mm)
2. Surface mount type
3. 2-way mounting available: top view/side view
4. Reflow soldering
5. Transparent resin: **PD100MC0MP/PD100MC0MP1**
Visible light cut-off resin: **PD100MF0MP/PD100MF0MP1**
6. Taped model

■ Applications

1. Cameras
2. Pagers
3. Potable game machine

■ Model Line-up

Resin		Mount type	Packing
Transparent resin	Visible light cut-off resin		
PD100MF0MP	PD100MF0MP	Side view	2 000pcs./1reel
PD100MF0MP1	PD100MF0MP1	Top view	1 500pcs./1reel

■ Absolute Maximum Ratings (Ta=25°C)

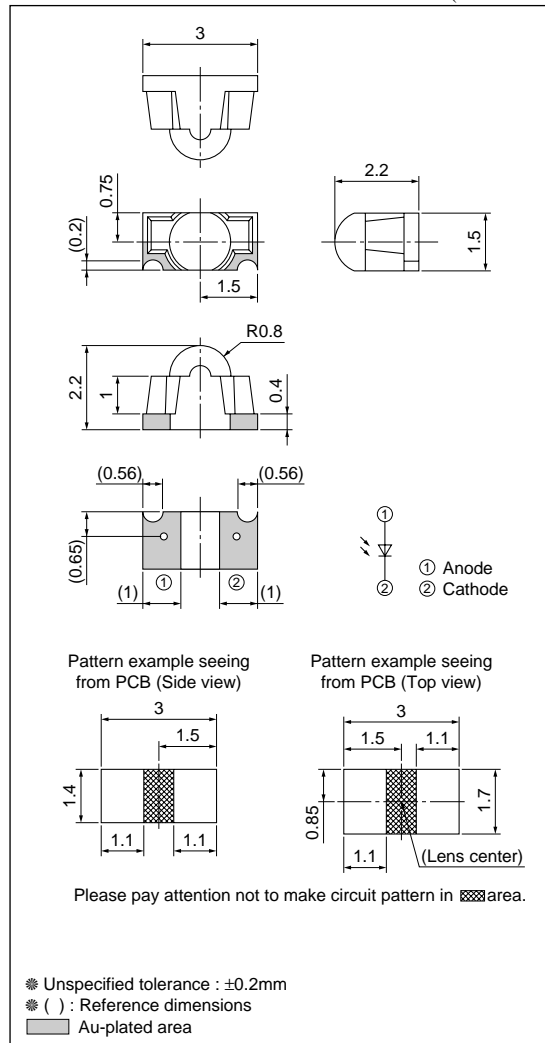
Parameter	Symbol	Rating	Unit
Reverse voltage	V _R	20	V
Power dissipation	P	75	mW
Operating temperature	T _{opr}	-30 to +85	°C
Storage temperature	T _{stg}	-40 to +95	°C
*1 Soldering temperature	T _{sol}	240	°C

*1 MAX. for 10 s

Compact, Surface Mount Type Photodiode

■ Outline Dimensions

(Unit : mm)



■ Electro-optical Characteristics

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

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Short circuit current	PD100MC0MP/PD100MC0MP1	I _{SC}	E _v =100 lx	0.6	0.9	1.2	μA
	PD100MF0MP/PD100MF0MP1			0.4	0.6	0.8	
Dark current		I _d	V _R =10V, E _v =0	—	—	10	nA
Terminal capacitance		C _t	V _R =15V, f=1MHz	—	—	10	pF
Peak sensitivity wavelength	PD100MC0MP/PD100MC0MP1	λ _p	—	—	820	—	nm
	PD100MF0MP/PD100MF0MP1			—	850	—	
Response time		t _r , t _f	V _R =15V, R _L =180Ω	—	10	—	ns
Half intensity angle		Δθ	—	—	20	—	°

*2 E_v:Illuminance by CIE standard light source A (tungsten lamp)

Fig.1 Power Dissipation vs. Ambient Temperature

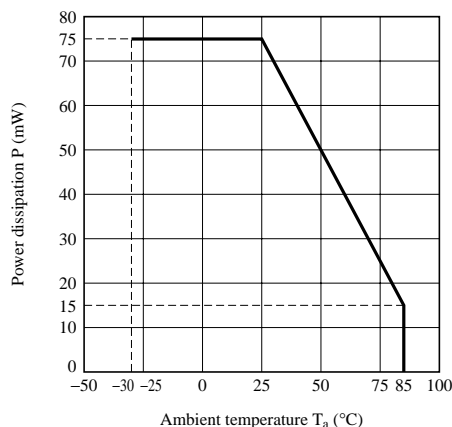


Fig.2 Spectral Sensitivity

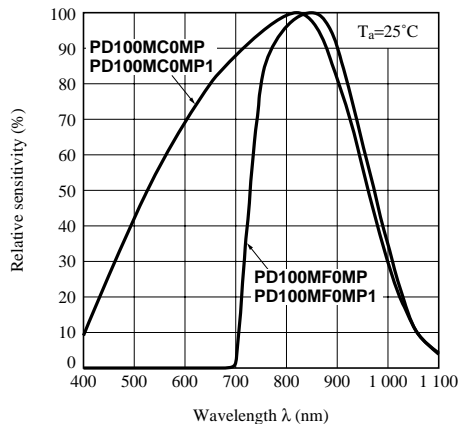


Fig.3 Dark Current vs. Ambient Temperature

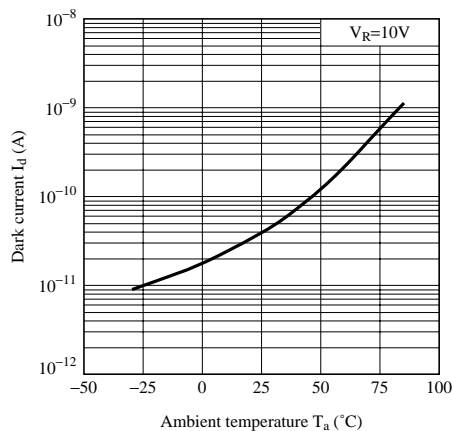


Fig.4 Dark Current vs. Reverse Voltage

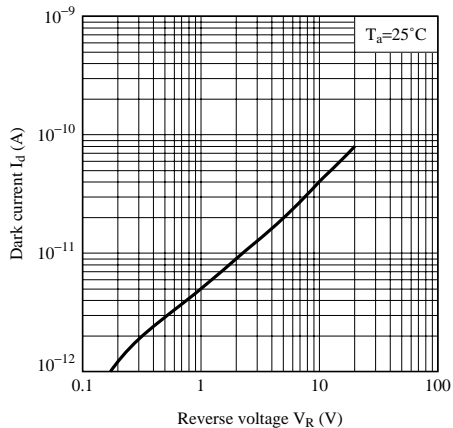


Fig.5 Terminal Capacitance vs. Reverse Voltage

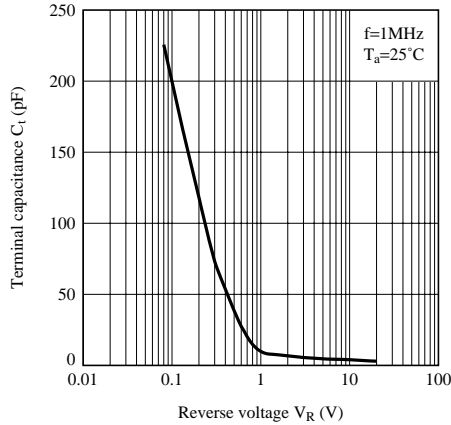


Fig.6 Relative Output vs. Ambient Temperature

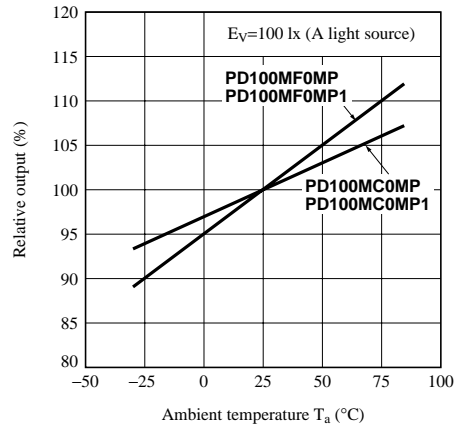


Fig.7 Sensitivity Diagram

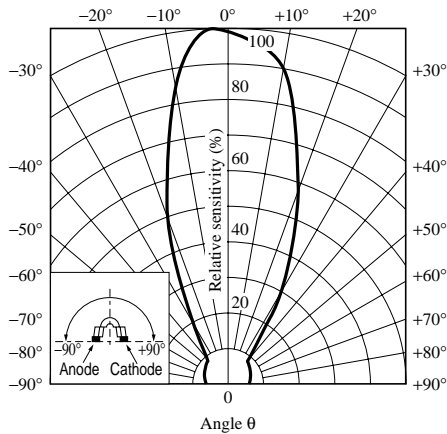


Fig.8 Relative Output vs. Distance (Emitter:GL100MNIMP)

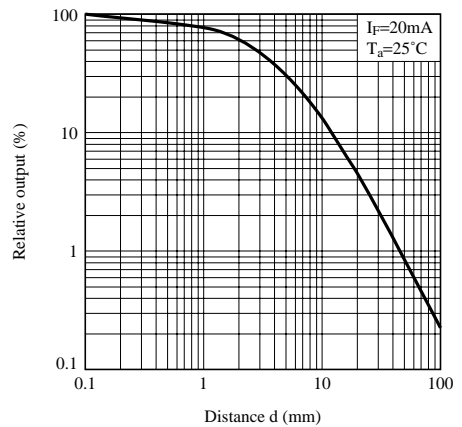


Fig.9 Response Time vs. Load Resistance

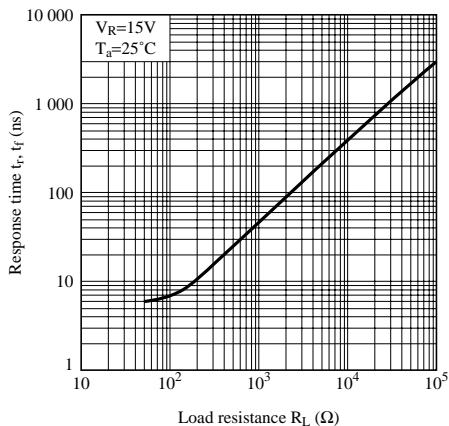
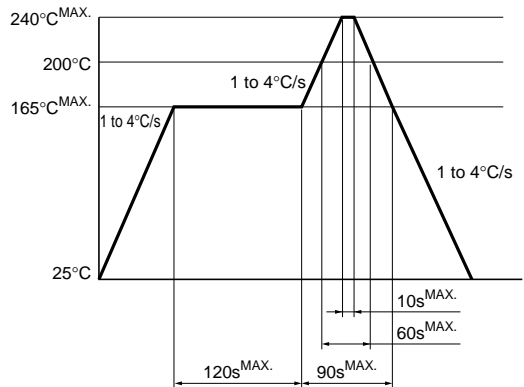


Fig.10 Reflow Soldering

Only one time soldering is recommended within the temperature profile shown below.



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