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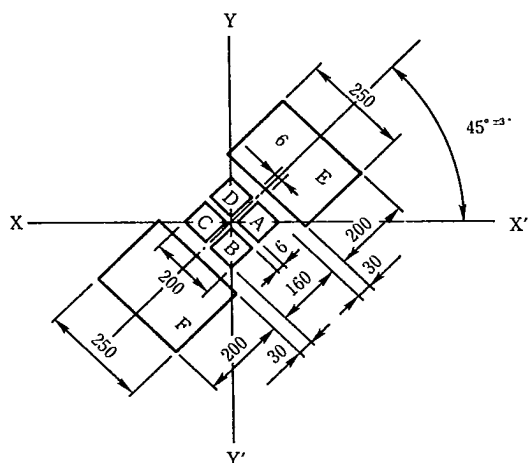
Amp. built-in type OPIC Light Detector T-41-67

■ Features

1. Built-in high-speed amplifier for video signal
(High cut-off frequency f_c : TYP. 20MHz)
2. Fine pitch
(Chip separation width: $6\mu\text{m}$)
3. Compact 10-pin flat package

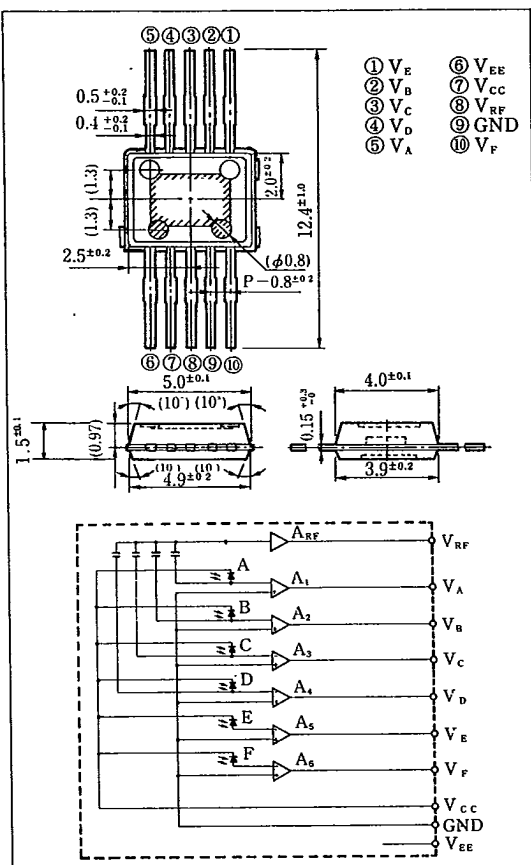
■ Applications

1. Laser disk players
2. CDVs

Enlarged drawing of detector portion (Unit: μm)

■ Outline Dimensions

(Unit: mm)



※ OPIC is a trademark of Sharp and stands for Optical IC. It has a light detecting element and signal processing circuitry integrated onto a single chip.

■ Absolute Maximum Ratings

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Supply voltage 1	V_{CC}	6	V
Supply voltage 2	V_{EE}	-6	V
Power dissipation	P	210	mW
Operating temperature	T_{opr}	-20 ~ +65	°C
Storage temperature	T_{stg}	-40 ~ +85	°C
*1 Soldering temperature	T_{sol}	260	°C

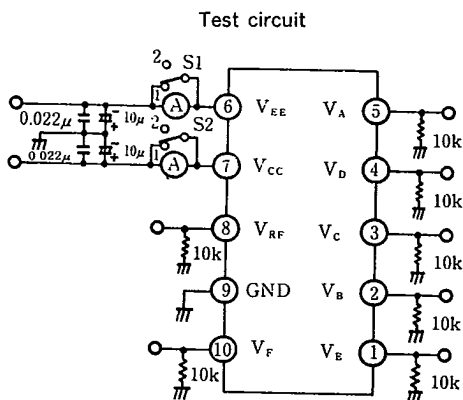
* 1 For 3 seconds at the position of 1mm from the surface of resin edge.

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$(V_{CC}=5V, V_{EE}=-5V, T_a=25^{\circ}C)$

- * 1 $(V_A + V_C) - (V_B + V_D)$, $V_E - V_F$
- * 2 Response frequency shall measure the frequency at the output -3dB from the output value modulated at the frequency 1MHz .
- * 3 Response frequency shall measure the frequency at the output -3dB from the output value modulated at the frequency 1kHz .

Parameter	Symbol	MIN.	MAX.	Unit
Supply voltage 1	V _{CC}	4.5	5.5	V
Supply voltage 2	V _{EE}	-4.5	-5.5	V



S1 switch shall connect to terminal 2 when measuring I_{EE} , and S1 switch shall connect to terminal 1 when measuring the other electrical characteristics.

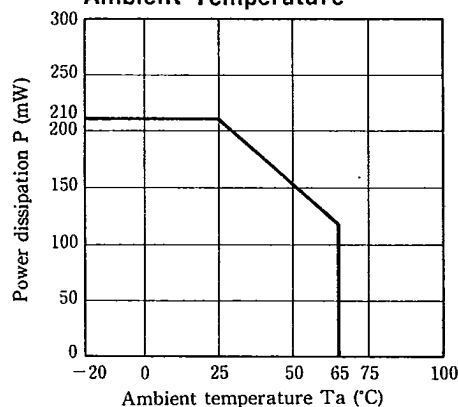
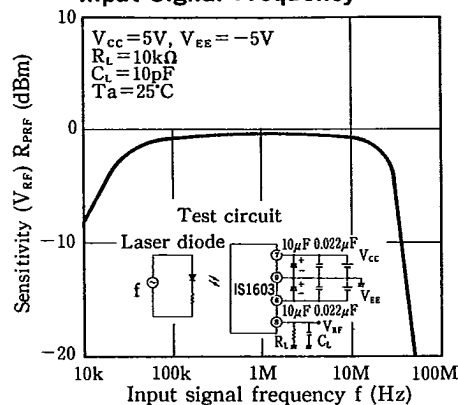
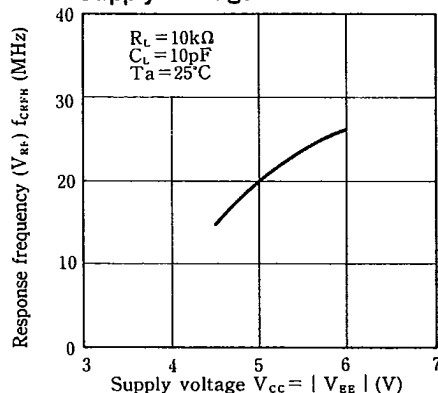
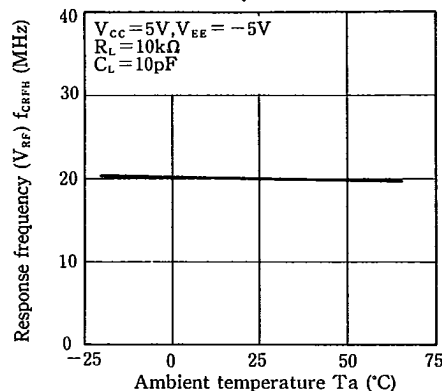
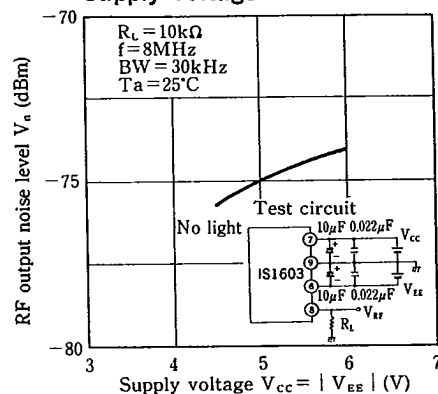
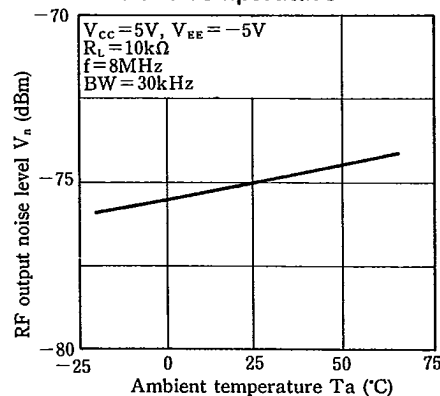
S2 switch shall connect to terminal 2 when measuring I_{CC} , and S2 switch shall connect to terminal 2 when measuring the other electrical characteristics.

(i) Laser diode shall be used as a light source. ($780\text{nm} \pm 5\text{nm}$)

(ii) Incident light intensity shall be $\begin{cases} 30\mu\text{W} \text{ at not modulating} \\ 30+10 \sin(t)\mu\text{W} \text{ at modulating.} \end{cases}$

(iii) Diameter of spot during irradiance shall be $40\mu\text{m}$, and the center of photodiode shall be positioned at the center of spot.

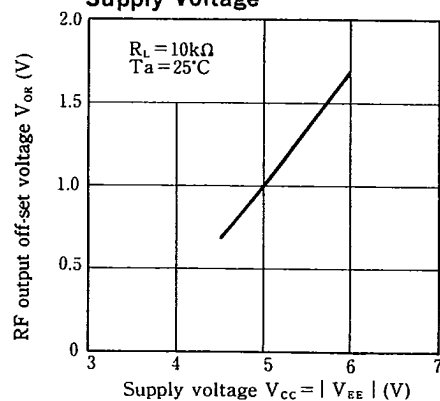
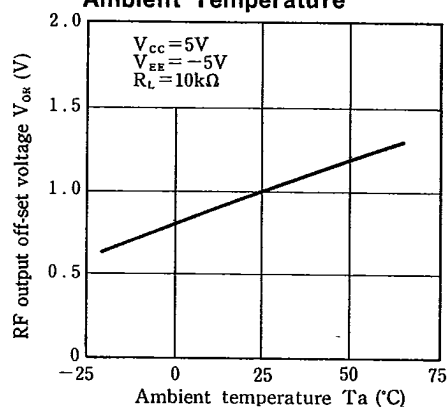
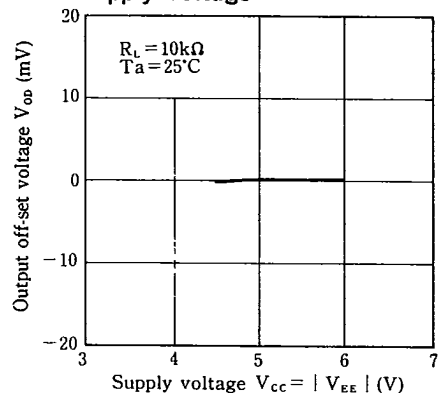
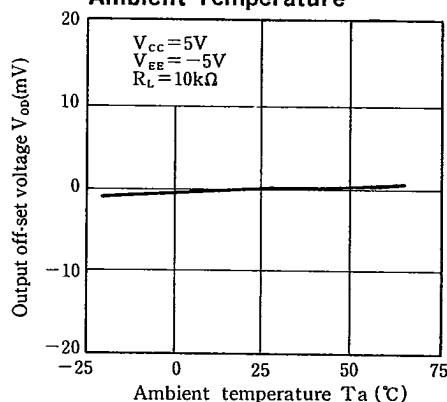
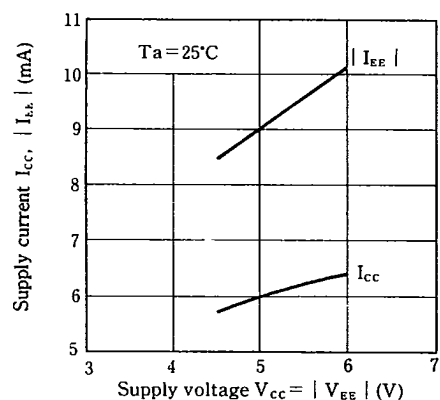
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Fig. 1 Power Dissipation vs. Ambient Temperature**Fig. 2 Sensitivity vs. Input Signal Frequency****Fig. 3 Response Frequency vs. Supply Voltage****Fig. 4 Response Frequency vs. Ambient Temperature****Fig. 5 RF Output Noise Level vs. Supply Voltage****Fig. 6 RF Output Noise Level vs. Ambient Temperature**

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Fig. 7 RF Output Off-set Voltage vs. Supply Voltage**Fig. 8 RF Output Off-set Voltage vs. Ambient Temperature****Fig. 9 Output Off-set Voltage vs. Supply Voltage****Fig. 10 Output Off-set Voltage vs. Ambient Temperature****Fig. 11 Supply Current vs. Supply Voltage**

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