



New Rev

APPROVAL SHEET

CUSTOMER : _____
DEVICE NAME : **PHOTO DIODE**
MODEL NO. : **SPD-59A42-G5**
ISSUED DATE : **AUG.14. 2012**

	ISSUE	REVIEW	REVIEW	APPR'D
ISSUED DEPT.		蒋宏华	邱丽红	

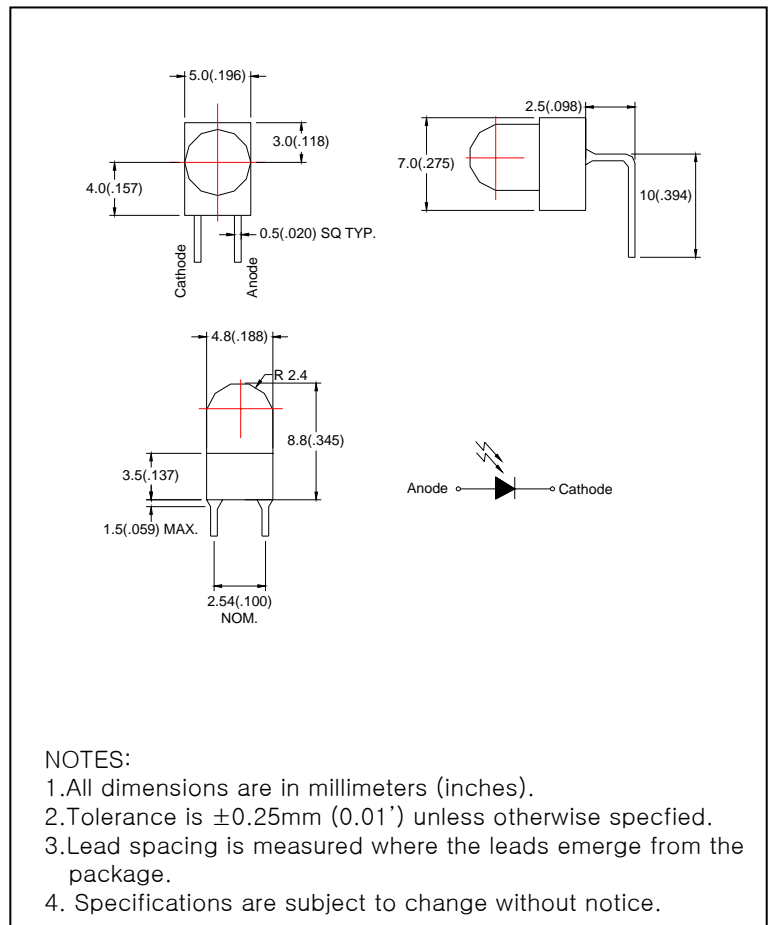
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● Features:

1. Wide receiving angle
2. Linear response vs. irradiance
3. Fast switching time
4. End-looking Package ideal for space limited applications
5. Lens Appearance: Black
6. This product doesn't contain restriction substance, comply ROHS standard

● Applications:

The SPD-59A42-G5 device consists of a PIN silicon photodiode molded in a black epoxy package which allows spectral response infrared light wavelengths. The wide receiving angle provides relatively even reception over a large area. The end-looking package is designed for easy PC board mounting. This photodiode is mechanically and spectrally matched to SEKSEMI's GaAs and GaAlAs series of infrared emitting diodes.

● Package dimensions:

NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ (0.01') unless otherwise specified.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

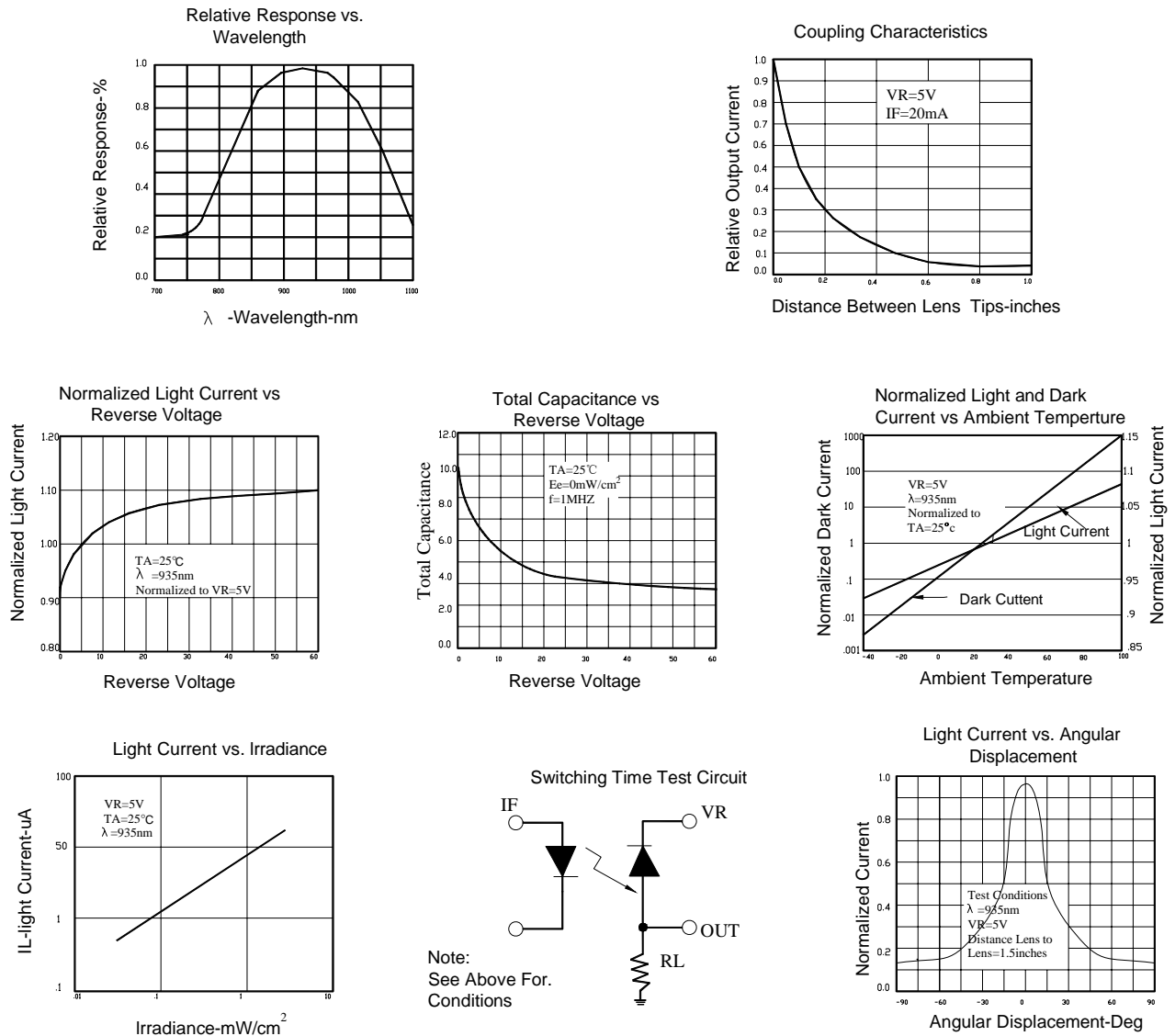
● Absolute Maximum Ratings(Ta=25°C)

Parameter	Maximum Rating	Unit
Power Dissipation	100	mW
Reverse Breakdown Voltage	60V	
Operating Temperature	-45°C ~ +85°C	
Storage Temperature Range	-45°C ~ +100°C	
Lead Soldering Temperature	260°C for 5 seconds	

*1Condition for IFP is pulse of 1/10 duty and 0.1msec width.

● Electrical and optical characteristics(Ta=25°C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Reverse Light Current	I_L	-	90		μA	$V_R=5V.E_e=1mW/cm^2$
Reverse Dark Current	I_D	-	-	30	nA	$V_R=10V.E_e=0 mW/cm^2$
Reverse Break down Voltage	$V_{(BR)}$	35	-	-	-	$I_R=100 \mu A$
Forward Voltage	V_F	0.5	-	1.3	V	$I_F=1mA$
Total Capacitance	C_T	-	9	-	PF	$V_R=5V.E_e=0,f=1.0MHZ$
Rise Time/ Fall Time	tr/ tf	-	50	-	ns	$V_R=20V, \lambda =940nm.RL=50 \Omega$

● Typical electro-optical characteristics curves


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