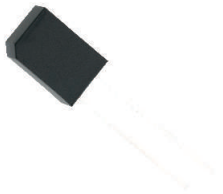
PHOTODIODE PRODUCTS SPECIFICATION

HPDR3K-45A



Drawn by	Checked by	Approved by

RoHS Conformity

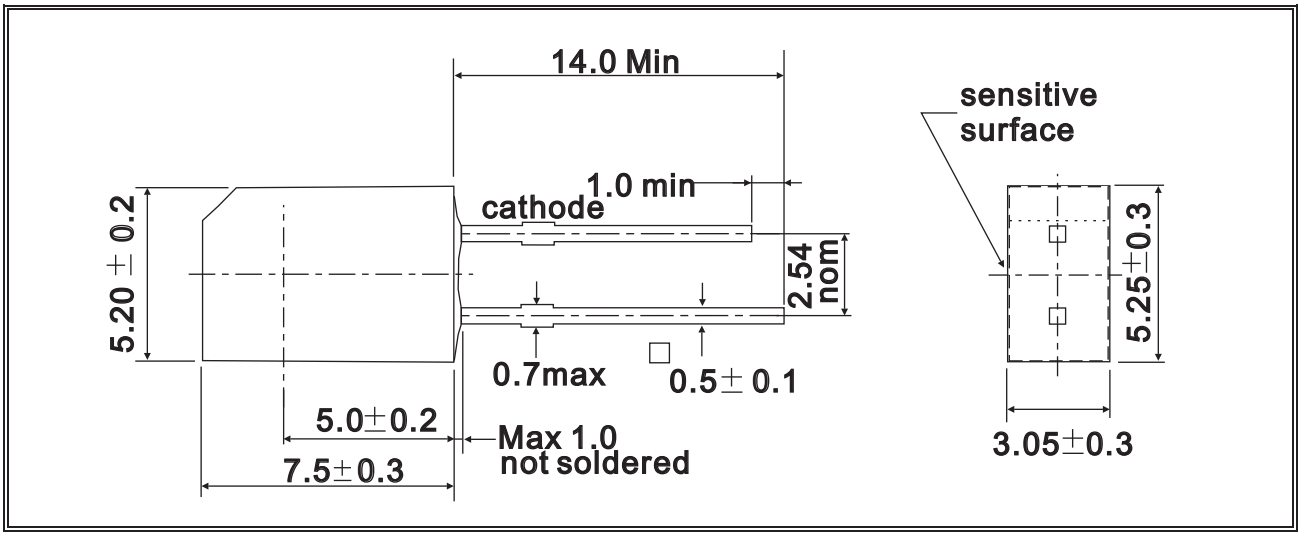
DATE:2009/2/2

REV:E

DEVICES

Part Number	Lens		Source	
	Color	Diffusion	Dice Source	Color
HPDR3K-45A	Water Clear	Non-Diffused	---	Photodiode

PACKAGE DIMENSIONS:



NOTE:
1.All dimensions are in millimeter.
2.Lead spacing in measured where the lead emerge from the package.
3.prodruded resin under flange is 1.5mm max.
4.specifications are subject to change without notice.
5.Tolerance is ±0.3mm unless otherwise noted.

ABSOLUTE MAXIMUM RATINGS

TA=25°C

PARAMETER	SYMBOL	MAX. RATING	UNIT
Power Dissipation	Pd	150	mW
Reverse Voltage	VR	33	V
Active Area	AA	7.16	mm^2
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Dip Soldering Temperature (3mm from case Bottom 260 °C for 5 seconds)			

*Iron soldering in 350°C within 5 seconds will not cause damage to the dice. But be aware of the high temperature will not only make the epoxy soften but also cause the lead moving and the gold wire broken and even open. So before returning to the normal temperature PLEASE AVOID any serious pressure on the top of epoxy and lead.

ELECTRIC-OPTICAL CHARACTERISTICS

TA=25°C

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
View Angle of Half Power	2θ1/2	E=0.5mw/cm^2		140		deg
Forward Voltage	VF	IF=40mA		1.3	1.6	V
Open Circuit Voltage	Voc	E=0.5mw/cm^2		350		mV
Light Current	Ip	E=1000Lux VR=10V		70		μA
Dark Current	IR	VR=10V,E=0			30	nA
Peak Wavelength *1	λp			900		nm
Sensitivity Wavelength	Sλ		500		1100	nm
Ries Time	Tr	VR=10V,RI=1KΩ		45		ns
Fall Time	Tf	VR=10V,RI=1KΩ		45		ns

*1.The dominate wavelength , λd, is derived from the CIE Chromaticity Diagram and represents the color of the device.

TYPICAL ELECTRICAL OPTICAL CHARACTERISTICS CURVES

Fig.1
Power Dissipation VS. Ambient Temperature

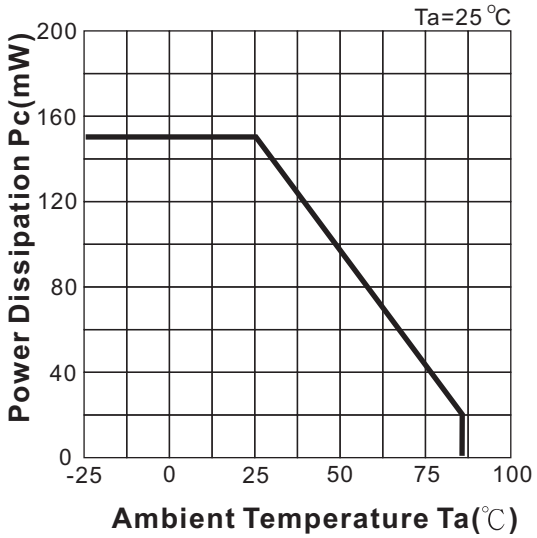


Fig.2
Spectral Sensitivity(Ta=25℃)

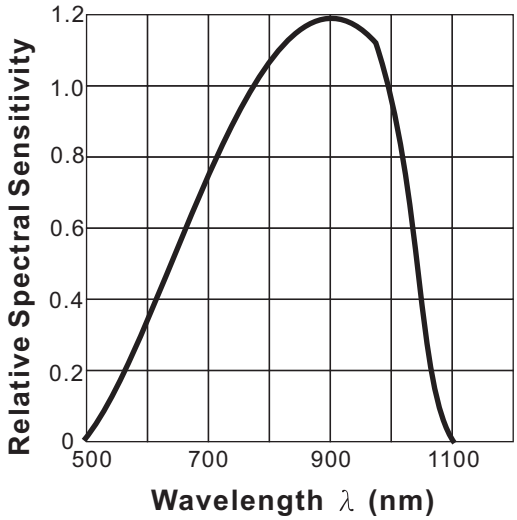


Fig.3
Dark Current VS. Ambient Temperature

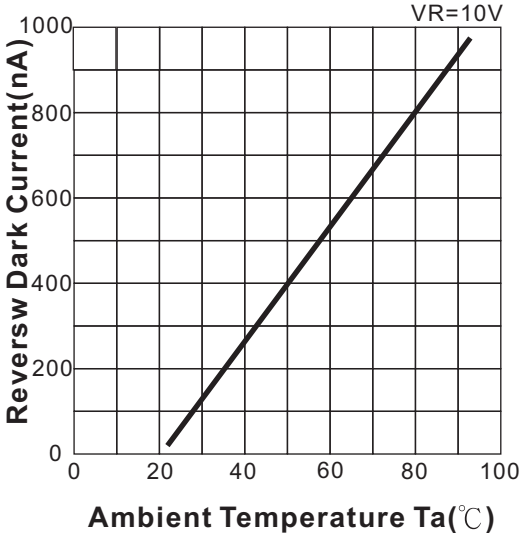
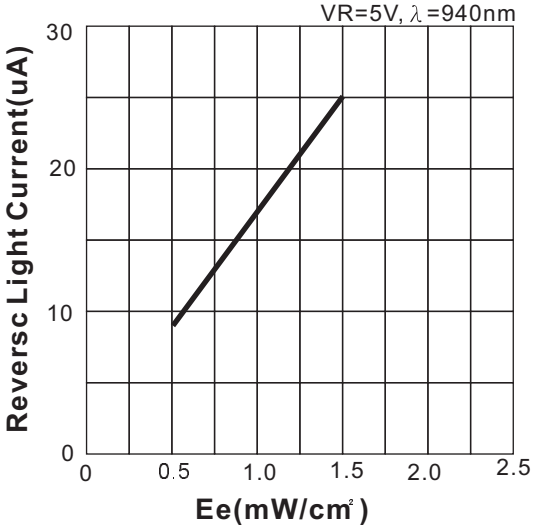


Fig.4
Reverse Light Current VS. Ee



TYPICAL ELECTRICAL OPTICAL CHARACTERISTICS CURVES

Fig.5
Terminal Capacitance VS. Reverse Voltage
(F=1MHz, V_R=3V, Ee=0mW/cm²)

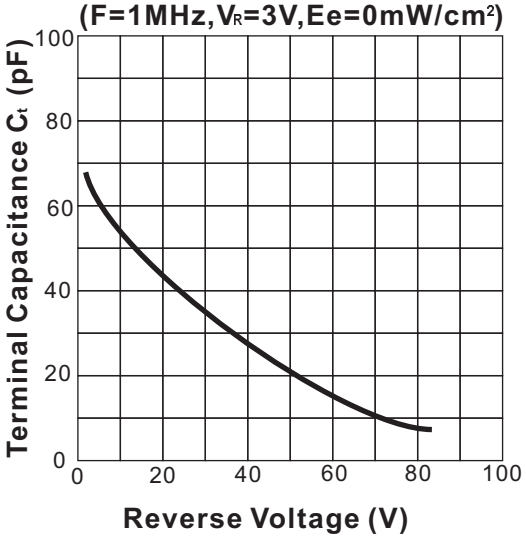


Fig.6
Response Time VS. Load Resistance
(V_R=10V, Ta=25℃)