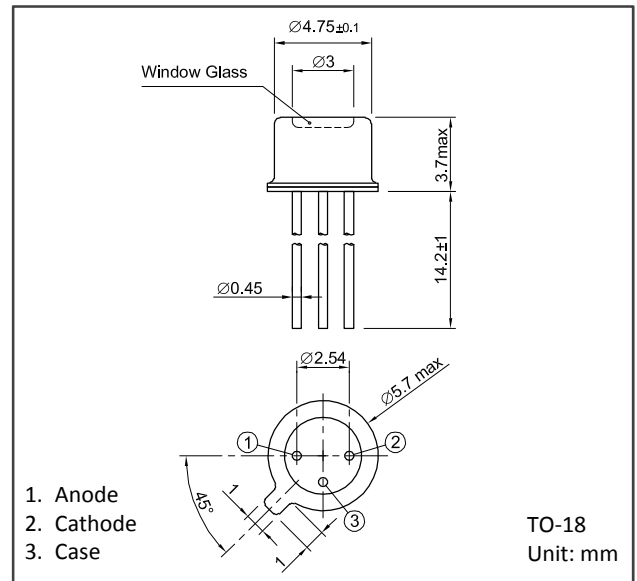


**Features**

- 1.5GHz response with 200 $\mu$ m active diameter
- 400MHz response with 500 $\mu$ m active diameter
- High gain

**Applications**

- Short wavelength optical communications
- Optical measurement
- Optical sensors
- Weak light signal detection

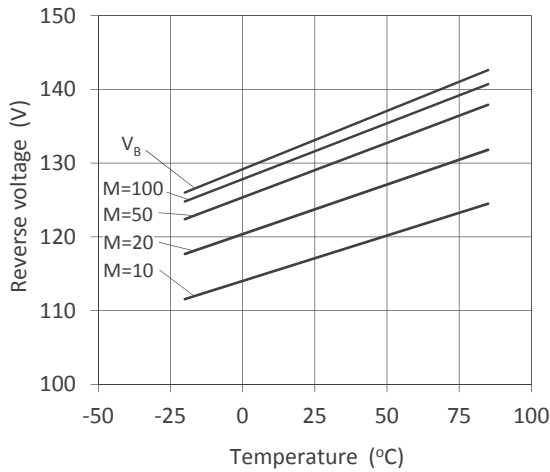
**Absolute Maximum Ratings**

Parameter	Symbol	Value	Unit	Note
Reverse current	$I_R$	200	$\mu$ A	
Forward current	$I_F$	10	mA	
Operating temperature	$T_{opr}$	-40 to +85	$^{\circ}$ C	Avoid dew condensation
Storage temperature	$T_{stg}$	-40 to +125	$^{\circ}$ C	Avoid dew condensation

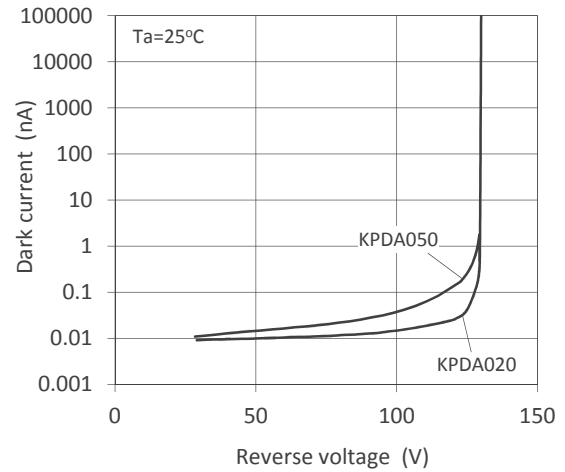
**Electrical and Operating Characteristics** ( $T_a=25^{\circ}$ C unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Active diameter	KPDA020	200			$\mu$ m	
	KPDA050	500				
Sensitive wavelength	$\lambda$	400	-	1000	nm	
Responsivity	R	0.3	0.35	-	A/W	$V_R=50V, \lambda=800nm$
Breakdown voltage	$V_B$	100	130	160	V	$I_R=100\mu A$
Multiplication factor	M	100	-	-	-	$V_R=V_B-1V$
Dark current	$I_D$	-	0.3	1	nA	$V_R=50V$
Terminal capacitance	KPDA020P	-	1.5	2	pF	$V_R=0.9V_B, f=1MHz$
	KPDA050P	-	5	7		
Cutoff frequency	KPDA020P	-	1.5	-	GHz	$M=100, R_L=50\Omega, \lambda=660nm$
	KPDA050P	-	0.4	-		

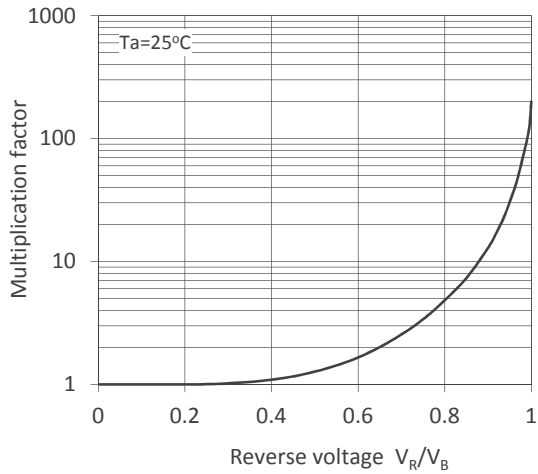
Temperature Dependency of  $V_B$



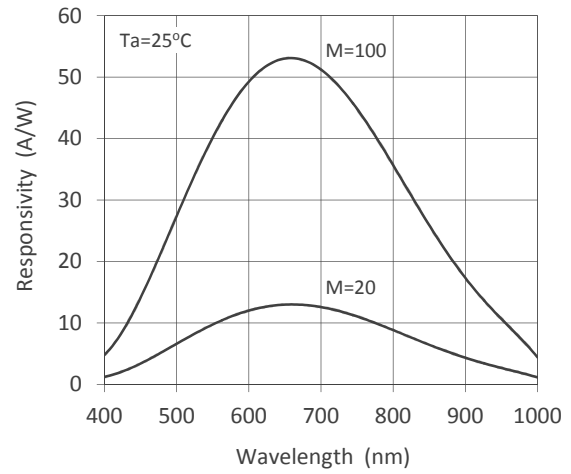
Dark Current - Reverse Voltage



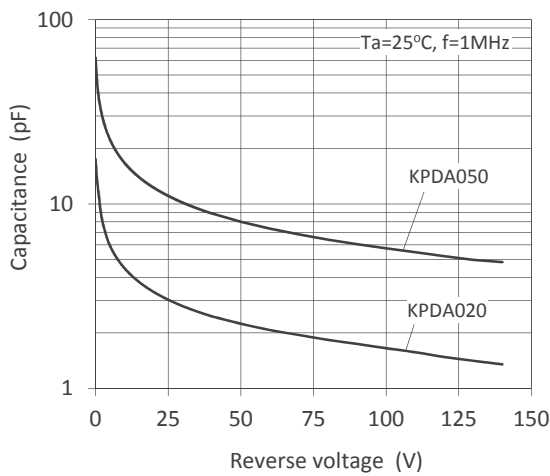
Multiplication Factor



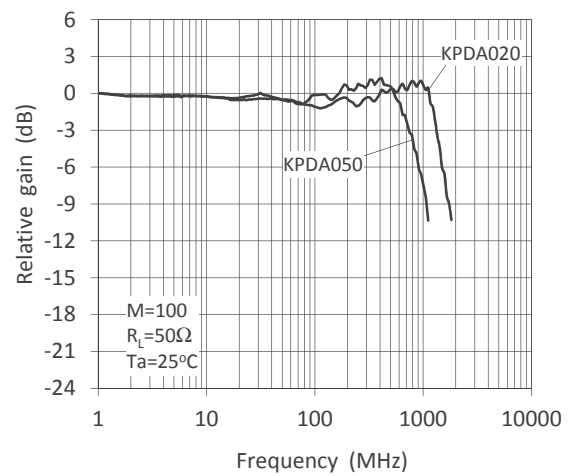
Spectral Responsivity



Capacitance - Reverse Voltage



Frequency Response



- Specifications , characteristics, data, materials, structures specified in this datasheet are subject to change without notice. Please refer to the latest specification before use of the products.
- Products listed in this datasheet comply with the RoHS Directive (EU2002/95/EC).

**Opto-technologies for the Future**



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