



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## IXOLAR™ High Efficiency Solar Cells

### Description

IXOLAR™ Solar Cells are IXYS' monocrystalline, high efficiency solar cell technology products incorporating an enhanced light trapping surface. There are 7 different cell sizes available: 36mm<sup>2</sup>, 120mm<sup>2</sup>, 240mm<sup>2</sup>, 342mm<sup>2</sup>, 360mm<sup>2</sup>, 480mm<sup>2</sup> and 676mm<sup>2</sup>.

The IXOLAR™ Solar Cells are ideal for charging various battery powered and handheld consumer products such as mobile phones, cameras, PDAs, MP3 players and toys. They are also suitable for industrial applications such as wireless sensors, portable instrumentation and for charging emergency backup batteries.

With an efficiency of typically 17%, these solar cells give the ability to extend run time even in "low light" conditions and increase battery life and run time in a small footprint, which can be easily accommodated in the design of Portable Products.

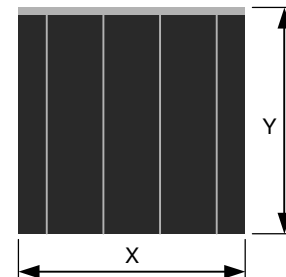
IXOLAR™ products have a very good response over a wide wavelength range and therefore can be used in both indoor and outdoor applications.

### Product and Ordering Information

Part Number	X [mm]	Y [mm]	Open Circuit Voltage [mV]	Short Circuit Current [mA]	Peak Power [mW]
XOD17-04B	6	6	630	12	6
XOD17-12B	6	20	630	42	20
XOD17-24B <sup>*1)</sup>	12	20	630	84	40
XOD17-34B	18.5	18.5	630	120	56
XOD17-36B <sup>*1)</sup>	18	20	630	126	60
XOD17-48B <sup>*1)</sup>	24	20	630	168	80
XOD17-68B	26	26	630	236	112

B-suffix: wire-bondable front-side metallization (non solderable)

<sup>\*1)</sup> do not use with new designs



Front-side contact (-)  
Back-side contact (+)

### Electrical Characteristics

Symbol	Cell Parameter	Typical Ratings <sup>2)</sup>	Units
V <sub>oc</sub>	open circuit voltage	630	mV
J <sub>sc</sub>	short circuit current density	35	mA/cm <sup>2</sup>
V <sub>mpp</sub>	voltage at max. power point	505	mV
J <sub>mpp</sub>	current density at max. power point	32.5	mA/cm <sup>2</sup>
P <sub>mpp</sub>	maximum peak power	16.6	mW/cm <sup>2</sup>
FF	fill factor	> 75	%
η	efficiency	17	%
ΔV <sub>oc</sub> /ΔT	open circuit voltage temp. coefficient	-2.1	mV/K
ΔJ <sub>sc</sub> /ΔT	short circuit current temp. coefficient	0.12	mA/(cm <sup>2</sup> K)
t	cell thickness	250	μm

<sup>2)</sup> All values measured at Standard Condition: 1 sun (= 100mW/cm<sup>2</sup>), Air Mass 1.5, 25°C

Operating temperature range: -40°C .... + 85°C

XOD17 solar cell dies are RoHS compliant

### Features

- Monocrystalline silicon technology
- High efficiency
- Enhanced light trapping surface

### Applications

- Battery chargers for portables such as cell phones, PDAs, GPS-Systems, ...
- "Green" electricity generation
- Power backup for UPS, Sensors, Wearables

### Advantages

- Long life and stable output
- Solderable back-side metallization
- Bondable front-side metallization
- Available in die and wafer form

Typical Performance Data

