

**66286**

**PHOTOVOLTAIC SURFACE MOUNT OPTOCOUPLER**



**OPTOELECTRONIC PRODUCTS  
DIVISION**

02/28/2008

**Features:**

- Small size saves real estate
- Pick and place compatible
- Military temperature range
- Solderable construction and terminations

**Applications:**

- FET and IGBT drivers

**DESCRIPTION**

The **66286** is designed to be used with both epoxy-based surface mounting and reflow solder mounting techniques. State-of-the-art optocoupler technology is utilized. Two high efficiency infrared LEDs are coupled to a photovoltaic cell. This device is ideal for automated assembly in pick-and-place applications.

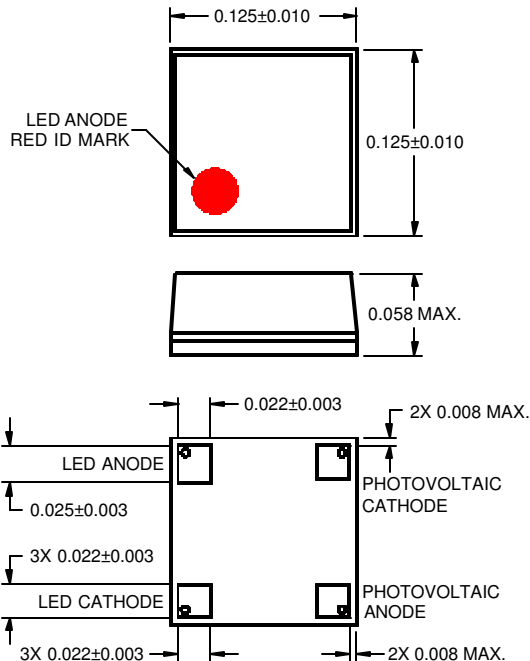
**ABSOLUTE MAXIMUM RATINGS**

Input to Output Isolation Voltage .....	+1 KVDC
Forward Voltage .....	.20 V
Reverse Voltage .....	200 V
Input Diode Continuous Forward Current at (or below) 65°C Free-Air Temperature (see note 1) .....	50mA
Storage Temperature.....	-65°C to +150°C
Operating Free-Air Temperature Range.....	-55°C to +125°C
Lead Solder Temperature.....	245°C

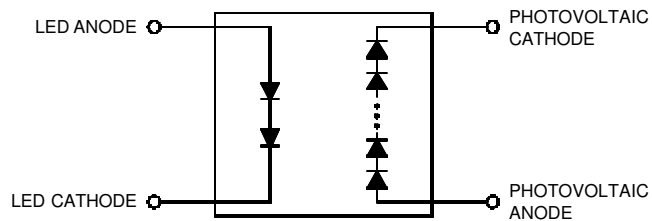
**Notes:**

1. Derate linearly to 125°C free-air temperature at the rate of 0.4 mW/°C above 65°C.

**Package Dimensions**



**Schematic Diagram**



**ELECTRICAL CHARACTERISTICS** $T_A = 25^\circ\text{C}$  unless otherwise specified.

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Input diode Static Reverse Current	$I_R$			100	$\mu\text{A}$	$V_R = 2\text{ V}$
Input Diode Static Reverse Voltage	$V_R$	3			V	$I_R = 10\ \mu\text{A}$
Input Diode Static Forward Voltage	$V_F$	2.2		3.0	V	$I_F = 10\ \text{mA}$

**COUPLED CHARACTERISTICS** $T_A = 25^\circ\text{C}$  unless otherwise specified.

Open Circuit Voltage	$V_{OC}$	12.0	14.0		V	$I_F = 10\ \text{mA}$
Short Circuit Current	$I_{SC}$	10.0			$\mu\text{A}$	$I_F = 10\ \text{mA}$
Turn ON Time	$t_{ON}$	60		250	$\mu\text{s}$	F = 1 KHz, $I_F = 10\ \text{mA}$ , C = 15 pF, $R_L = 1\ \text{M}\Omega$ , Pulse Width = 1 ms $t_{ON} = 0\%$ to 90%, $t_{OFF} = 100\%$ to 10%,
Turn OFF Time	$t_{OFF}$	60		250		

**RECOMMENDED OPERATING CONDITIONS:**

PARAMETER	SYMBOL	MIN	MAX	UNITS
Input Current	I	1	20	mA
Operating Temperature	$T_A$	-55	125	$^\circ\text{C}$