

# Laser diode of computer optical drive

Laser diodes are the most common type of lasers produced, with a wide range of uses that include fiber-optic communications, barcode readers, laser pointers, CD / DVD / Blu-ray disc reading/recording, ...

There are two major techniques used to drive laser diodes: continuous wave (CW) and pulse drive. The pulse drive method produces a pulsed output in response to a brief current ...

Harvesting a Laser Diode From an Optical Drive: Have you ever wondered how powerful that tiny little laser is in your CD, DVD, or BluRay drive/burner? Well now you can.

Unlock the secrets of laser diodes! Explore how they work, their construction, different types, and surprising uses in everyday tech - from CD players to medical marvels.

An optical drive works by using a laser to read and write data onto a physical medium, such as a CD, DVD, or Blu-ray disc. The drive contains a laser diode that emits a focused beam of ...

A laser diode driver is an electronic device that supplies one or more laser diodes with the required electrical drive current. It is essential for the stable and safe operation of the laser diode.

At same time, reference voltage  $V_2$  is generated by zenner diode and volume. OP2 always control the base current for output transistor so that it is always  $V_1=V_2$  and constant current flows into LD.

Laser diodes work when electron-hole recombination takes place inside a p-n junction, resulting in the stimulated emission in an optical cavity. This cycle helps in producing the laser light, ...

Some laser diode drivers are universal, while others are specific to the wiring of the laser diode. These are clearly identified in each laser diode driver datasheet.

Learn about the laser diode, including package types, applications, drive circuitry, and some laser diode specifications.

Interlock Systems  
Constant Power Mode  
Electrical Monitoring Outputs  
Low-Noise Operation  
Slow Start Feature and Turn-On Delay  
Wavelength Tuning  
Quasi-Continuous Wave Operation  
Short and Ultrashort Pulse Generation  
Computer Control  
There are devices which can stabilize the optical output power (constant power mode), based on a signal from the photodetector, which may be integrated into the laser diode package. (That is particularly often the case for fiber-coupled laser diodes.) Of course, a certain maximum drive current must never be exceeded; otherwise, a laser diode could ...  
See more on [rp-photonics](#)  
`.rcimgcol .cico { background: #f5f5f5; } .b_drk .rcimgcol .cico, .b_dark .rcimgcol .cico { background: unset; } .b_imgSet .b_hList`

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li.square_m,.b_imgSet .b_hList li.tall_m{width:75px}.b_imgSet .b_hList li.tall_mlb{width:113px}.b_imgSet
.b_hList li.tall_mln{width:96px}.b_imgSet .b_hList li.wide_m{width:128px}.b_imgSet.b_Card .b_hList
li{padding-left:1px;padding-right:9px}.b_imgSet.b_Card .b_hList
li.tall_wfn{width:80px;padding-right:6px}.b_imgSet.b_Card .b_hList
li:last-child{padding-right:1px}.b_imgSet.b_Card .b_imgSetData{padding:0 8px
8px;height:40px}.b_imgSet.b_Card .b_imgSetItem{box-shadow:0 0 0 1px rgba(0,0,0,.05),0 2px 3px 0
rgba(0,0,0,.1);border-radius:6px;overflow:hidden}.b_imgSet .b_imgSetData p
a{color:#444;outline-offset:0}.b_subModule .b_clearfix.b_mhdr .b_floatR .b_moreLink,.b_subModule
.b_clearfix.b_mhdr .b_floatR
.b_moreLink:visited,.b_subModule>.b_moreLink,.b_subModule>.b_moreLink:visited{color:#767676}.b_img
Set
.cico.b_placeholder{display:flex;justify-content:center;background-color:#f5f5f5;background-clip:content-bo
x}.b_imgSet .cico.b_placeholder a{display:flex}.b_imgSet .cico.b_placeholder a
img{width:48px;height:48px;margin:auto}@media(max-width:1362.9px){#b_context .b_entityTP .b_imgSet
li:nth-child(5){display:none}.b_imgSet .b_hList
li.wide_m:nth-child(3){display:none}@media(max-width:1274.9px){#b_context .b_entityTP .b_imgSet
li:nth-child(4){display:none}.b_imgSet .b_hList li.wide_m:nth-child(2){display:none}}.rcimgcol
.b_imgSet{content-visibility:auto;contain-intrinsic-size:1px
124px}.rcimgcol{height:108px;padding-top:var(--smtc-gap-between-content-x-small);padding-bottom:var(--s
mtc-gap-between-content-x-small)}.b_algo:has(.b_agh)
.rcimgcol{padding-top:var(--smtc-gap-between-content-xx-small)}.rcimgcol
.b_imgSet{overflow:hidden}.rcimgcol .b_imgSet
ul{overflow-x:auto;overflow-y:hidden;white-space:nowrap;padding-left:0}.rcimgcol .b_imgSet
ul::-webkit-scrollbar{-webkit-appearance:none}.rcimgcol .b_imgSet
.b_hList>li{padding-right:var(--smtc-padding-ctrl-text-side)}.rcimgcol .b_imgSet
.cico{border-radius:unset}.rcimgcol .b_imgSet .b_hList>li:first-child .cico,.rcimgcol .b_imgSet
.b_hList>li:first-child .cico
a{border-radius:unset;border-top-left-radius:var(--mai-smtc-corner-card-default);border-bottom-left-radius:var
(--mai-smtc-corner-card-default);overflow:hidden}.rcimgcol .b_imgSet .b_hList>li:last-child .cico,.rcimgcol
.b_imgSet .b_hList>li:last-child .cico
a{border-radius:unset;border-top-right-radius:var(--mai-smtc-corner-card-default);border-bottom-right-radius:
var(--mai-smtc-corner-card-default);overflow:hidden}.rcimgcol .rcimgcol
.b_sideBleed{margin-left:unset;margin-right:unset}.rcimgcol .b_imgclgovr{cursor:pointer}.rcimgcol
.b_imgclgovr .cico img:hover{transform:scale(1.05);transition:transform .5s ease}#b_content
#b_results>.b_algo
.b_caption:has(.rcimgcol){padding-right:var(--mai-smtc-padding-card-default);margin-right:calc(-1*var(--mai
-smtc-padding-card-default));margin-left:calc(-1*var(--mai-smtc-padding-card-default));padding-left:var(--ma
i-smtc-padding-card-default)}.rcimgcol .b_imgSet .b_hList .cico a{display:flex;outline-offset:-2px}
sightsOverlay,#OverlayIFrame.b_mcOverlay
sightsOverlay{position:fixed;top:5%;left:5%;bottom:5%;right:5%;width:90%;height:90%;border:0;border-rad
ius:15px;margin:0;padding:0;overflow:hidden;z-index:9;display:none}#OverlayMask,#OverlayMask.b_mcOv

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erlay{z-index:8;background-color:#000;opacity:.6;position:fixed;top:0;left:0;width:100%;height:100%}.rcimg
col .b_hList>li{position:relative;padding-bottom:0}.rcimgcol .b_hList>li
.iacf_smol{pointer-events:none;border-top-right-radius:var(--mai-smtc-corner-card-default);border-bottom-rig
ht-radius:var(--mai-smtc-corner-card-default);white-space:normal}.rcimgcol .b_hList
.cico{margin-bottom:0}.iacf_smol{display:flex;justify-content:center;align-items:center;gap:var(--smtc-gap-b
etween-content-xx-small);width:100%;height:100%;background:rgba(0,0,0,.6);position:absolute;left:0;top:0;c
olor:var(--mai-smtc-foreground-ctrl-on-image-rest);font:var(--bing-smtc-text-global-body2-strong);flex-wrap:
wrap;align-content:center;text-align:center}.iacf_smol:hover{text-decoration:underline}.iacfmit[data-nohov]
.iacfimgc .cico
img{transform:none}.b_algoTextCarousel{margin-left:0;margin-right:0;padding-bottom:var(--smtc-gap-betw
een-content-x-small)}.b_algoTextCarousel
.b_insideSlide{padding:var(--mai-smtc-padding-card-default);height:200px;width:200px;display:flex;flex-dire
ction:column;border-radius:var(--mai-smtc-corner-card-default);border:1px solid
var(--smtc-stroke-ctrl-on-neutral-rest);box-sizing:border-box;background:var(--smtc-background-card-on-pri
mary-default-rest)}.b_algoTextCarousel
.b_insideSlide:hover{background:var(--smtc-background-card-on-primary-default-hover)}.b_algoTextCarous
el
.b_insideSlide:active{background:var(--smtc-background-card-on-primary-default-pressed)}.b_algoTextCaro
usel .b_slidebar .slide{border-radius:var(--mai-smtc-corner-card-default)}.b_algoTextCarousel .b_slidebar
.slide a:hover{text-decoration:none}.b_algoTextCarousel .b_slidebar .slide
.b_text{color:var(--smtc-foreground-content-neutral-secondary);font:var(--bing-smtc-text-global-body3);displ
ay:-webkit-box;-webkit-box-orient:vertical;-webkit-line-clamp:7;overflow:hidden;text-overflow:ellipsis;word-
wrap:break-word}.b_algoTextCarousel .b_textcarouselfooter{margin-top:auto}.b_algoTextCarousel
.b_textcarouselfooter .b_upvote
.rms_img{height:12px;width:12px;padding-right:var(--smtc-gap-between-content-xx-small);vertical-align:mid
dle;margin-top:-2px}.b_algoTextCarousel .b_textcarouselfooter
.b_upvote{font:var(--bing-smtc-text-global-caption2);color:var(--bing-smtc-foreground-content-neutral-secon
dary-alt)}.b_algoTextCarousel .b_slidebar .slide:has(.b_textcarouselfooter)
.b_text{-webkit-line-clamp:6}.b_algoTextCarousel.b_algoTtxtCalSml
.b_insideSlide{padding:var(--smtc-gap-between-content-small)
var(--mai-smtc-padding-card-default);height:88px}.b_algoTextCarousel.b_algoTtxtCalSml .b_slidebar .slide
.b_text{-webkit-line-clamp:3}.b_acf_crsl .slide.b_crslitm>*:last-child,.b_acf_crsl .b_slideexp,#b_topw
.b_wpt_container .b_slidesContainer:has(.b_acf_crsl) .b_slidesContainer{margin-bottom:unset}#b_topw
.b_wpt_container:has(.b_acf_crsl) .b_viewport{padding:unset}#b_topw .b_wpt_container
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.bg{background:unset}.b_acf_crsl.hovexp .b_viewport,.b_acf_crsl.hovexp .b_slidebar,#b_pole #tob_container
.b_acf_crsl.hovexp .b_viewport{height:unset!important}#b_topw .b_wpt_container .b_acf_crsl
.btn.bld.next,#b_topw .b_wpt_container .b_acf_crsl .btn.bld.prev,.b_acf_crsl .btn.next,.b_acf_crsl
.btn.prev{z-index:5}.b_acf_crsl.b_fadebg .btn.next
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```

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0%,var(--smtc-background-card-on-primary-default-rest) 60%)).b_acf_crsl.b_fadebg .btn.prev
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.btn.next .bg{background:linear-gradient(90deg,var(--bing-smtc-ctrl-background-fade-stop-0)
0,var(--bing-smtc-background-card-on-primary-alt-rest) 20px)).b_acf_crsl.b_fadebg.b_fadebg_theme
.btn.prev .bg{background:linear-gradient(270deg,var(--bing-smtc-ctrl-background-fade-stop-0)
0,var(--bing-smtc-background-card-on-primary-alt-rest) 20px)).b_dark .b_acf_crsl .b_slidebar
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.bg{background:linear-gradient(270deg,var(--bing-smtc-background-ctrl-fade-on-primary-stop-0)
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.bg{background:linear-gradient(90deg,var(--bing-smtc-background-ctrl-fade-on-primary-stop-0)
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.b_viewport,.b_acf_crsl.hovexp .leftrightmost .b_overlay .b_viewport,.b_acf_crsl.hovexp .b_overlay
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between-content-x-large)*-1)!important}.b_acf_crsl.hovexp .middle .b_overlay
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.slide>{*margin-bottom:var(--smtc-padding-ctrl-text-side)!important}.b_colg_3xs
.slide{margin-inline-end:var(--smtc-padding-ctrl-sm-text-top)!important}.b_rowg_3xs
.slide>{*margin-bottom:var(--smtc-padding-ctrl-sm-text-top)!important}.b_colg_2xs
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.slide{margin-inline-end:var(--smtc-gap-between-content-x-small)!important}.b_rowg_xs
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.slide{margin-inline-end:var(--smtc-gap-between-content-medium)!important}.b_rowg_m
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```

```
.slide{margin-inline-end:var(--smtc-padding-content-xx-large)!important}.b_rowg_3xl
.slide>{*{margin-bottom:var(--smtc-padding-content-xx-large)!important}.b_colg_4xl
.slide{margin-inline-end:var(--smtc-padding-content-xxx-large)!important}.b_rowg_4xl
.slide>{*{margin-bottom:var(--smtc-padding-content-xxx-large)!important}.b_acf_crsl
.b_acf_card:focus-visible,.b_acf_crsl .b_acf_card.b_acf_kbd_focus{outline:2px solid
var(--smtc-ctrl-focus-outer-stroke);outline-offset:-3px;border-radius:var(--mai-smtc-corner-card-default);z-ind
ex:1}.b_acf_card{box-sizing:border-box;border-radius:var(--mai-smtc-corner-card-default);-webkit-user-selec
t:none;user-select:none;position:relative;width:100%;height:100%;position:relative}.b_acf_card.b_acf_bckgn
d{background:var(--bing-smtc-background-card-on-primary-alt-rest)}.b_acf_card_link{border-radius:var(--m
ai-smtc-corner-card-default);outline-offset:-1px;position:absolute;width:100%;height:100%}.b_acf_card_link:
hover{text-decoration:unset}.acf_col1_4{width:140px}.acf_col1_6{width:160px}@media(forced-colors:activ
e){.b_acf_card_link{background-color:unset}.b_acf_card
.acf_t_c_title{color:LinkText!important}}.acf_col1{width:88px}.acf_col2{width:200px}.acf_col3{width:312
px}.acf_col4{width:424px}.acf_col5{width:536px}.acf_col6{width:648px}.acf_col7{width:760px}.acf_col8
{width:872px}.acf_col9{width:984px}.acf_col10{width:1096px}.acf_col11{width:1208px}.acf_col12{width:
1320px}.acf_row1{height:88px}.acf_row2{height:200px}.acf_row3{height:312px}.acf_row4{height:424px}.
acf_row5{height:536px}.acf_row6{height:648px}.acf_row7{height:760px}.acf_row8{height:872px}.acf_row
9{height:984px}.acf_row10{height:1096px}.acf_row11{height:1208px}.acf_row12{height:1320px}.b_overla
y .acfdefaultchev.btn.next{right:0!important}.b_overlay .acfdefaultchev.btn.prev{left:0!important}.b_overlay
.acfdefaultchev.btn:hover .bg{opacity:unset;filter:unset}.b_overlay .acfdefaultchev.btn.disabled,.b_overlay
.acfdefaultchev.btn.hidden{display:none}.b_overlay .acfdefaultchev.btn{width:48px}.b_overlay
.acfdefaultchev.btn .bg{opacity:unset}.b_overlay .acfdefaultchev.btn.prev .cr{left:0}.b_overlay
.acfdefaultchev.btn.next .cr{right:0}.acfdefaultchev
.cr{display:flex;justify-content:center;align-items:center;flex:1 0 0
0;align-self:stretch;width:36px;height:48px;position:absolute;margin:unset;opacity:unset;transition:unset;bord
er-radius:var(--smtc-corner-ctrl-lg-rest);background:var(--bing-smtc-background-container);box-shadow:var(-
-smtc-shadows-floating-action-button-rest);fill:var(--smtc-foreground-content-neutral-secondary)}.acfdefaultc
hev .cr:hover{background:var(--smtc-ctrl-fab-background-hover)}.acfdefaultchev
.cr:active{background:var(--smtc-ctrl-fab-background-pressed)}.b_ofchev .acfdefaultchev.btn.prev
.cr{left:-18px}.b_ofchev .acfdefaultchev.btn.next
.cr{right:-18px}@media(forced-colors:active){.acfdefaultchev .cr{background:ButtonFace}.acfdefaultchev
.cr>svg{fill:ButtonText}.acfdefaultchev .cr:hover,.acfdefaultchev
.cr:has(:focus-visible){background:Highlight}}.b_nochevshadow .acfdefaultchev .cr,.b_nochevshadow
.acfdefaultchev .cr:hover,.b_nochevshadow .acfdefaultchev .cr:active,.b_nochevshadow .acfdefaultchev
.cr:focus{background:none!important;box-shadow:none!important}.slide.b_crslitm.b_sldfitcont{width:fit-cont
ent}#slideexp0_866EF8 .slide:last-child { margin-inline-end: 0; } #slideexp0_866EF8 .slide>*:last-child {
margin-bottom: unset !important; } .b_acf_crsl #slideexp0_866EF8c .b_slidebar .slide { box-shadow: unset;
-webkit-box-shadow: unset; } .b_acf_crsl.hovexp #slideexp0_866EF8c.b_slideexp .b_overlay
.b_slidesContainer { overflow: visible !important; } .b_acf_crsl.hovexp #slideexp0_866EF8c.b_slideexp
.b_overlay .b_viewport .b_acf_crsl.hovexp #slideexp0_866EF8c.b_slideexp .b_viewport { padding-top: 12px
!important; margin-top: -12px !important; padding-bottom: 12px !important; margin-bottom: -12px
```

# Laser diode of computer optical drive

!important; } .b\_acf\_crsl.hovexp #slideexp0\_866EF8c.b\_slideexp .b\_overlay .b\_viewport { padding-bottom: 24px !important; margin-bottom: -24px !important; }InstructablesHarvesting a Laser Diode From an Optical Drive - InstructablesSee MoreHarvesting a Laser Diode From an Optical Drive: Have you ever wondered how powerful that tiny little laser is in your CD, DVD, or BluRay drive/burner? Well now you can.

Web: <https://maxtools.co.za>

