

650nm 5mW LD

By converting the external APC circuit board into an ASIC, we package the APC circuit into a traditional TO-can together with the laser chip. From now on, single package APC function included laser diode is realized. Powered with Arima's proprietary APC **LASER DIODE^{TE}** technology, **ADL-65055SA4** is your perfect solution for the stable light power output, compact size, high brightness laser light source.



Features

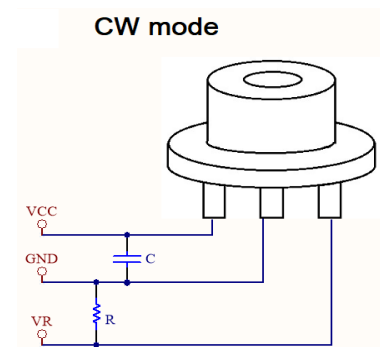
1. 650nm 5mW 50°C high reliable operation
2. Saving space and cost of laser module
3. Voltage driven LD, easy to use
4. Highly stable laser output power
5. Strong reverse bias protection
6. High ESD sustainability
7. Stable output power vs. supply voltage from 2.7V to 6.0V.
8. Light-fuse: automatic shutdown when output power over the limit

Applications

1. Industry : laser level, illumination, meter, scanner, detector
2. Consumer : pointer light, sweeper, TV game lighting
3. Health : special wavelength light source

Absolute maximum ratings

Parameter	Symbol	Rating	Unit
Power supply voltage	V_{cc}	2.7~6.0	V
Laser optical output power	P_o	7.0	mW
case temperature	T_c	-30 ~ +50	°C
Storage temperature	T_{stg}	-40 ~ +85	°C



Electrical and optical characteristics ($T_c=25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Wavelength	λ	645	655	660	nm	$P_o=5\text{mW}$
Operation current	I_{cc}	-	26	40	mA	$P_o=5\text{mW}$
Variable resistor	VR	3	10	17	K Ω	$V_{cc}=3\text{V}$
Parallel divergence angle	$\theta_{//}$	6	9	12	Deg	$P_o=5\text{mW}$
Perpendicular divergence angle	θ_{\perp}	24	28	35	Deg	
Parallel FFP deviation angle	$\Delta\theta_{//}$	-3.0	0	+3.0	Deg	
Perpendicular FFP deviation angle	$\Delta\theta_{\perp}$	-3.0	0	+3.0	Deg	
Emission point accuracy	$\Delta x \Delta y \Delta z$	-80	0	+80	μm	-
Power-Temp stability (50~25°C)	ΔP_{oT}	-15	-	10	%	$P_o=5\text{mW}, V_{cc}=3.0\text{V}$
Power-Vcc stability (6.0~3.0V)	ΔP_{oV}	-10	-	10	%	$P_o=5\text{mW}, \text{Temp}=25^\circ\text{C}$
Power-Vcc stability (2.7~3.0V)	ΔP_{oV}	-10	-	10	%	$P_o=5\text{mW}, \text{Temp}=25^\circ\text{C}$

* Effective heat sink is recommended on 6V case due to extra heat

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