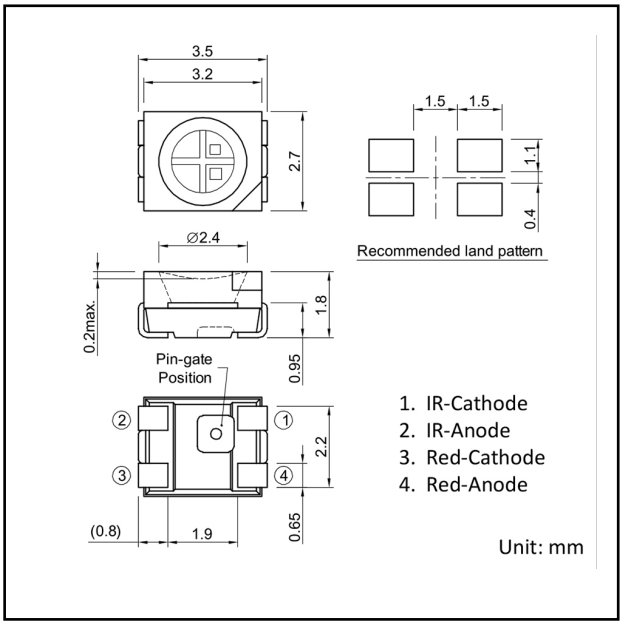
Multi Wavelength LEDs

KED691DS3



Characteristics

- Red and IR emitters in a single package
- Small SMD package
- Direct modulation

Applications

- Bull recognition
- Color sensors

Chip Material

- Red：GaAlAs
- Infrared：GaAs

Package

- SMD

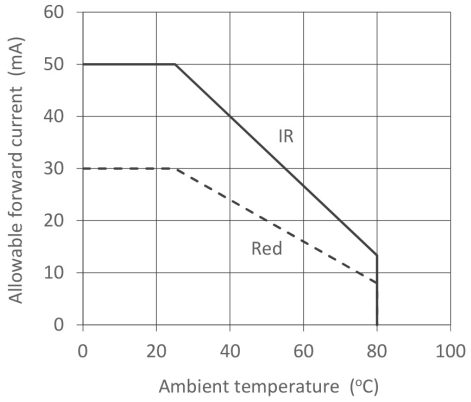
Absolute Maximum Ratings

Parameter	Symbol	Wavelength	Value	Unit	Conditions
Reverse voltage	V_R	Red	6	V	-
		Infrared	6		
Forward current	I_F	Red	30	mA	T_a=25°C
		Infrared	50		
Peak forward current	I_{FP}	Red	0.3	A	Pulse width=100µs Duty ratio=0.1%
		Infrared	0.5		Puls width=100µs Duty ratio=0.1%
Power dissipation	P_D	Red	70	mW	100mW max.in total
		Infrared	70		
Operating temperature	T_{opr}	-	-20 to +80	°C	Avoid dew condensation
Storage temperature	T_{stg}	-	-25 to +100	°C	Avoid dew condensation
Soldering temperature	T_{sol}	-	350	°C	Soldering time less than 3 seconds

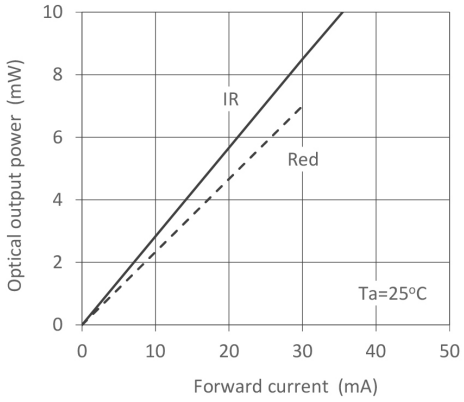
Electrical and Optical characteristics (T_a=25°C unless otherwise noted)

Parameter	Symbol	Wavelength	Min.	Typ.	Max.	Unit	Conditions
Reverse Current	I_R	-	-	-	10	µA	V_R=6V
Forward voltage	V_F	Red	-	1.7	2.0	V	I_F=20mA
		Infrared	-	1.2	1.4		
Optical output power	P_O	Red	2.5	-	7	mW	I_F=20mA
		Infrared	4	-	7		
Peak wavelength	λ_p	Red	-	660	-	nm	I_F=20mA
		Infrared	-	940	-		
Spectral width	$\Delta\lambda$	Red	-	20	-	nm	I_F=20mA
		Infrared	-	50	-		
Half angle	2θ	Red	-	115	-	deg.	I_F=20mA
		Infrared	-	115	-		

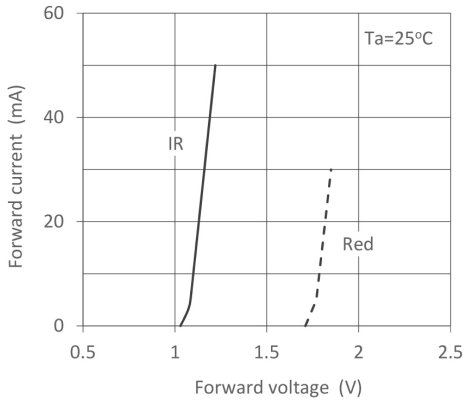
Allowable Forward Current-Ambient Temperature



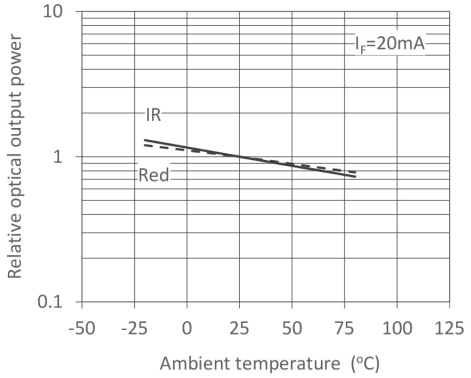
Optical Output Power - Forward Current



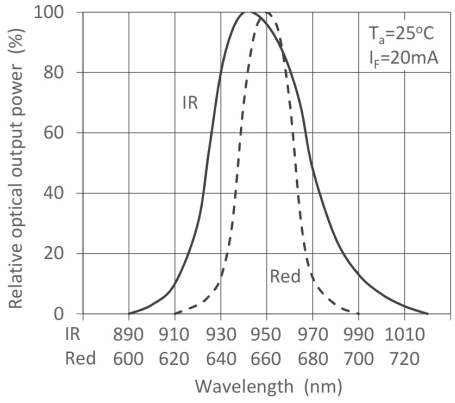
Forward Current - Forward Voltage



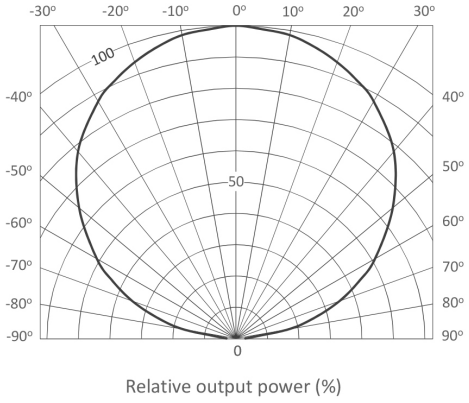
Relative Optical Output Power - Ambient Temperature



Spectral Distribution



Directivity



Notice and Disclaimer

Please note the following points regarding the technical information and product usage described in this document.

1. Information such as product specifications, characteristics, data, specification materials, and structures described in this document is subject to change. Before using our products, make sure to order the latest specifications and check the content. We disclaim warranty unless you use the latest specifications.
2. When considering applications involving heating, such as soldering, especially with eutectic solders, be sure to refer to the latest specifications and check the heat resistance standards.
3. We do not guarantee that your intended use will be satisfied or that our product will comply and operate with the equipment that you use.
4. While the information contained in this document has been carefully prepared for the sake of accuracy, we shall not be liable whatsoever even in the unlikely event that you or a third party suffers damage as a result of the information being incorrect, insufficient, incomplete, or misprinted.
5. Reprinting orreproduction of any part or this entire website without our permission is strictly prohibited.
6. The circuits and usage, etc. included in this document are for reference only. We do not guarantee that there will be no infringement of the intellectual property rights or other rights of the customer or a third party regarding these. We are not liable for any damage related to the infringement of the intellectual property rights or other rights of the customer or a third party.
7. The information contained in this document does not permit the customer to implement or use intellectual property rights or other rights owned or managed by us or a third party.
8. The products included in this document require an extremely high level of reliability, and they are not designed and manufactured for use with equipment or devices (medical equipment, transportation equipment, public transportation equipment, aerospace equipment, nuclear power control devices, fuel control, in-vehicle equipment (excluding car accessories not related to car control), various safety devices, etc.) (hereinafter, "specific application") whose failure or malfunction may cause danger or damage to one s life or health or any other serious damage. We are not liable for any damage caused to you or a third party by using this product or this information for a specific application without obtaining the prior written consent of Dexerials Corporation. If you are considering using this product or this information for a specific purpose, please contact our sales office beforehand.
9. For our customers to export this product or the technology we provide, it is necessary to comply with the Foreign Exchange and Foreign Trade Act and the security export control laws and regulations of each country, and follow the procedures stipulated by the said laws and regulations. Do not use this product or this information for purposes such as developing weapons of mass destruction, military use, or other military purposes.
10. This product conforms to the RoHS Directive (2011/65/EU, (EU)2015/863).
11. If you have any inquiries regarding the details of the products described in this document, or if you have any other questions, please feel free to contact us.

Disclaimer for Sample Products

Dexerials Corporation expressly disclaims any warranty for product samples; development prototypes (engineering samples), and mass production prototypes (pre-production samples). In no event shall Dexerials Corporation be liable, whether in contract or in tort, or otherwise, for any damages not only direct or common damages but also any incidental, special, indirect, consequential or punitive damages, including, but not limited to, damages for any loss of use, loss of time, inconvenience, commercial loss, or lost profits, savings or revenues to the fullest extent permitted by law or equity.
By ordering a product sample and subsequently using a product sample, you agree to the terms above.

Dexerials Corporation
1724 Shimotsuboyama, Shimotsuke-shi, Tochigi 323-0194, Japan
TEL：＋81-285-39-7950　https://www.dexerials.jp/en/