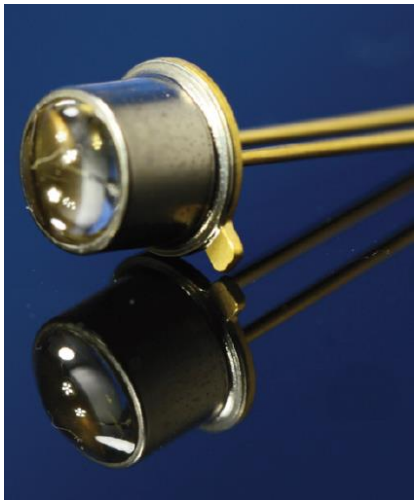
SWIR Infrared Emitter

Model No. AL1651M-WRC

SWIR λp1650nm LED

RoHS compliant

Peak Emission Wavelength : 1650nm
The 1650nm IR emitter series is designed for applications requiring precise optical / mechanical axis alignment and IR radiation in the SWIR range. Custom package solutions and sorting are available.



FEATURES

> Metal Can Package
> Narrow Beam Angle
> High Reliability

APPLICATIONS

> Bio Medical Applications
> Optical Sensors
> Optical Communications

◆ Absolute Maximum Ratings

Ta = 25℃

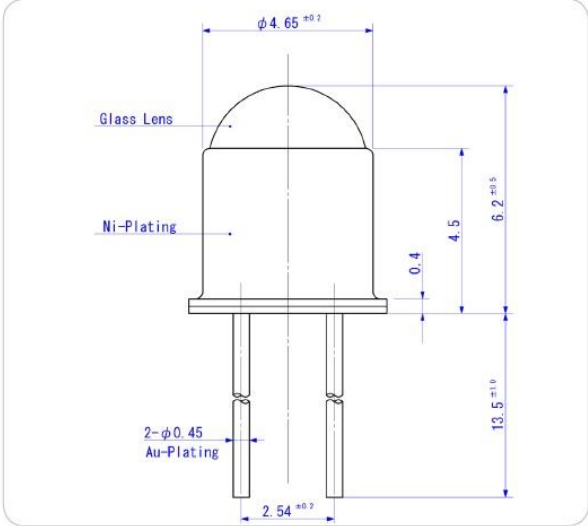
Items	Symbol	Value	Unit
Forward Current (DC)	I_F	100	mA
Forward Current (Pulse)*1	I_{FP}	1	A
Reverse Voltage (DC)	V_R	5	V
Power Dissipation	PD	100	mW
Operating Temperature Range	Topr	-25～+85	℃
Storage Temperature Range	Tstg	-30～+100	℃
Lead Soldering Temperature *2	Tls	260	℃

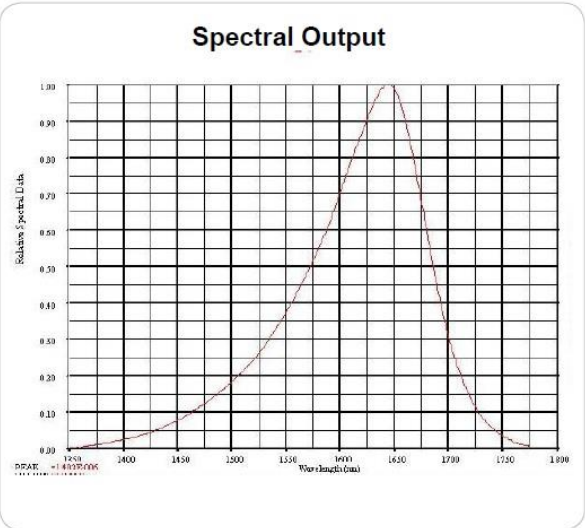
*1: Tw=10μsec, T=10msec; *2: Time 5 Sec max, Position: Up to 3mm from the body.

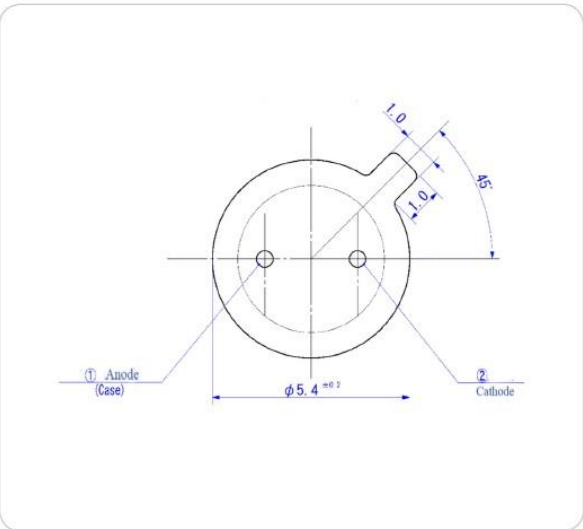
◆ Electrical - Optical Characteristics

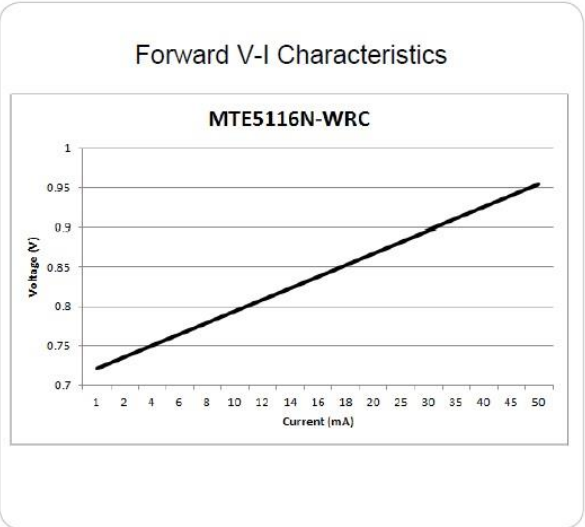
Ta = 25℃

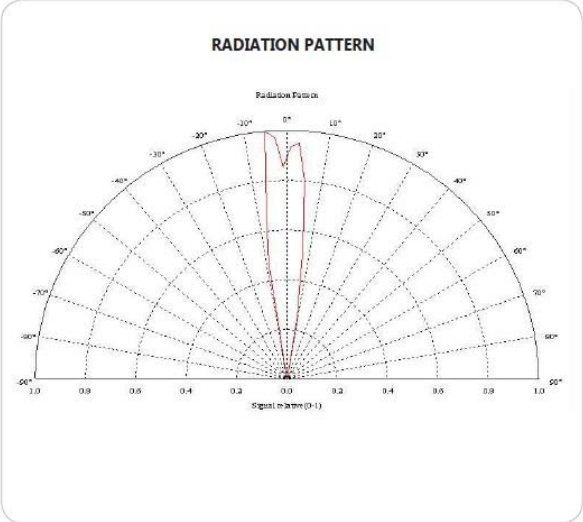
Items	Symbol	Value			Unit	Conditions
		Min.	Typ.	Max.		
Power Output	PO	--	3.0	--	mW	IF=50mA
Forward Voltage	VF	--	0.99	--	V	IF=50mA
Power Output	PO	--	1.6	--	mW	IF=20mA
Forward Voltage	VF	--	0.87	--	V	IF=20mA
Reverse Current	IR	--	--	100	μA	VR=5V
Peak Emission Wavelength	λ p	--	1650	--	nm	IF=20mA
Spectral Line Half Width	Δ λ	--	115	--	nm	IF=20mA
Half Intensity Beam Angle	θ	--	16	--	deg	IF=20mA

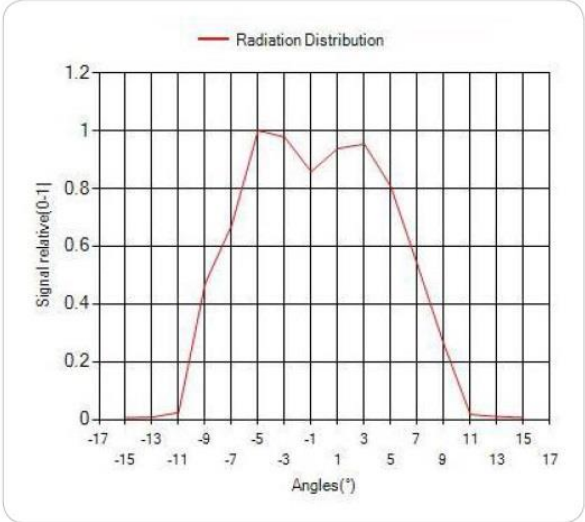









RADIATION PATTERN


Radiation Distribution
Signal relative[0-1]
1.2
1
0.8
0.6
0.4
0.2
0
-17
-15
-13
-11
-9
-7
-5
-3
-1
1
3
5
7
9
11
13
15
17
Angles(°)