



DEVETECH ELECTRONICS CO. LTD

Metal indicator light

Specification: 8mm flat head with wire

Reference: DVFL1M08FWT12RGB012A20.20/20

Customer: DACHS ELECTRONICA

DESIGNED BY	
CHECKED BY	
APPROVED BY	

Address: 11/F.,F.Block, Hang Lok Building, 130Wing Lok St., Hong Kong.

Address: A3L1, Youpinyishu, Huanmei Rd., Dameisha, Yantian district, Shenzhen, China Tel:(86)3632770721

Email: sales@devetechelectronics.com

Website: www.devetechelectronics.com



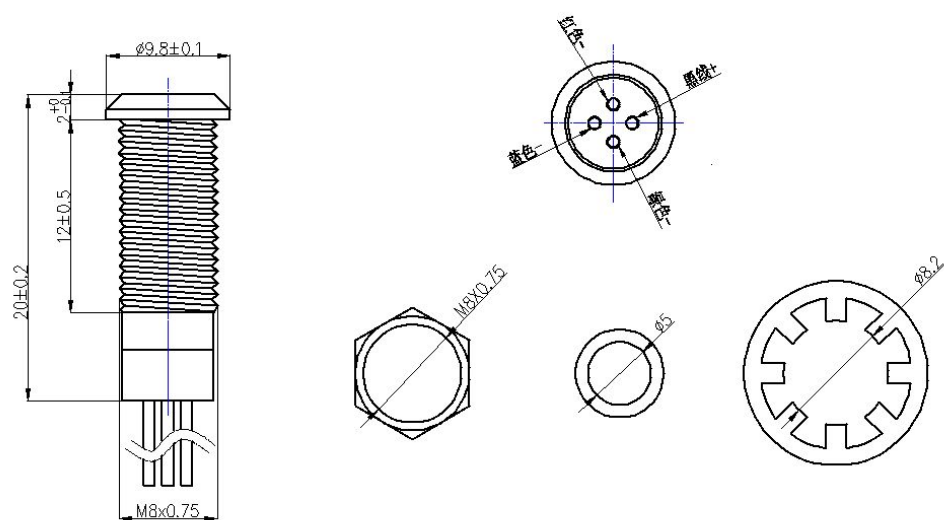
DEVETECH ELECTRONICS CO. LTD

CONTENTS		
N°	Contents	Page
1	Picture	1
2	Drawing	1
3	Component material	2
4	Performance parameter	2
5	Detailed picture	3
6	LED specification	3
7	Resistor Specification (RMS 1/4W 200kΩ)	7

1. Picture



2. Drawing



PS: From left to right is nut, O-ring and Gasket.



3 Component material

Component name	material
Bushing	Brass
Lampshade	PC
Base	Nylon
O-ring	Nitrile rubber
Gasket	Cold-Rolled steel plate
Nut	Brass
Conducting wire	Teflon
Resistor	
Heat Shrink tube	
LED	

4 Performance parameter

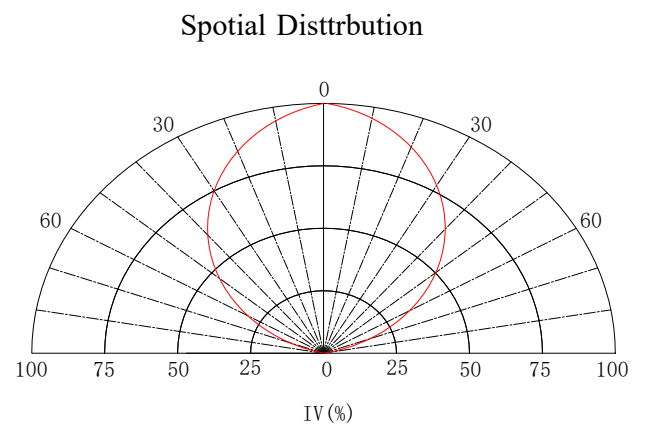
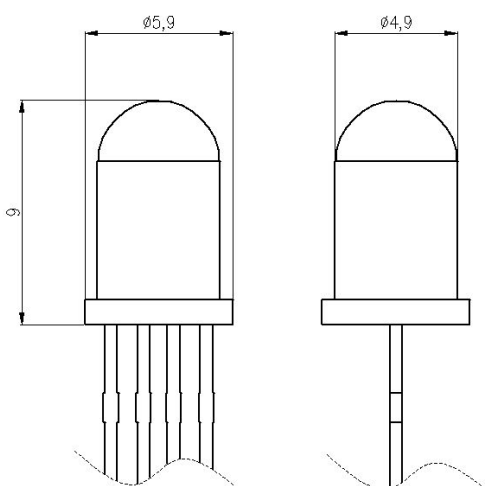
Items	Parameter
Rated voltage	3V-220V
Rated current	20mA
Withstand Voltage	2000V
cold endurance	-20℃
Heat endurance	85℃
Color of light	Red/yellow/blue/green/white
IP Degree	IP67

4. Detailed Picture



5.LED Specification

Emitter



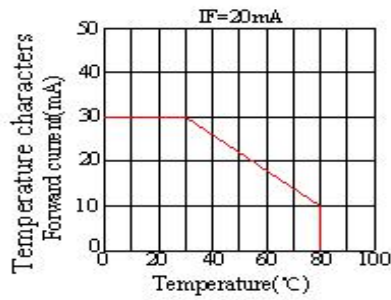
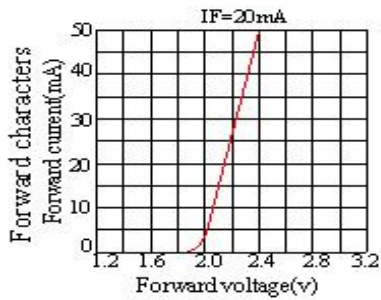
Absolute Maximum Rating

Parameter	Symbol	Unit	Maximum Rating
Power Dissipation	P	MW	60
Continuous Forward Current	I _F	MA	25
Reverse Voltage	V _R	V	5
Operating Temperature Range	Top	°C	-25 to +80
Storage Temperature Range	Tst	°C	-25 to +90
Soldering Temperature	Tso	°C	260 (for 5 second)

*Ifp Conditions: Pulse Wide ≤ 10msec ≤ 1/10

*Tsol Conditions: 3mm from the base of epoxy bulb

Typical electrical-optical Characteristics curves

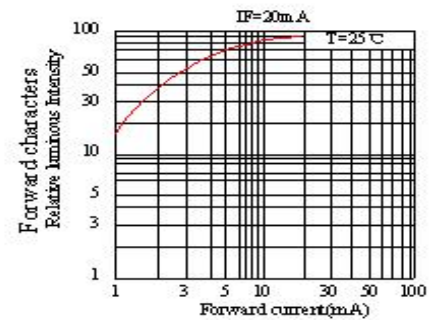
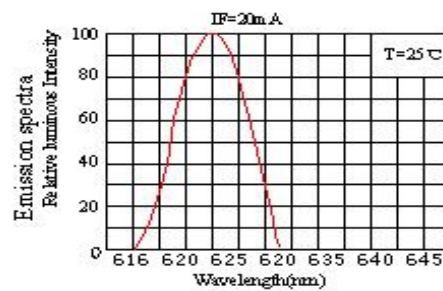
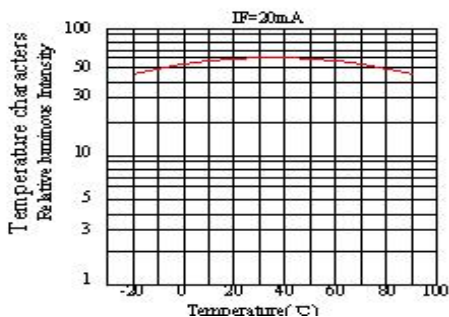


Notes:

The data are an typical presentation of the product, Contact customer service for details of technical information and warranty.

The product is sensitive to static antistatic operation environment is recommended

Products are shipped in either bulk bag package or taping.



Typical Optical/Electrical Characteristics

Color parameters		Optical Brightness	0.00 cd/m2
Main Wavelength	520.7.0 nm	light intensity	1000 mcd
Peak Wavelength	632.2 nm	luminous flux	4.8 lm
Peak width	21.3 nm	luminous power	0.32 mW
colour coordinates xy	(.1404.7126)	luminous efficacy	56.81 lm/W
colour coordinates u'v'	(.0498.5690)	forward current	20.00 mA
colour purity	0.758	alternating voltage	4.22 V
Color temperature	8400k	AC power	0.084 W

Notes:

- 1.Work absolute ratings Ta=25°C humidity=60%
- 2.Tolerance of measurement of forward voltage±0.1V
- 3.Test Machine: SSP6612 series LED test system

LED LAMP RELIABILITY

Type	Test Item	REF. Standard	Test Condition	Note	Number of Damaged
Environmental Sequence	Temperature Cycle	JIS C 7021 (1997) A-4	-20℃→25℃→80℃→25℃ 30mins,5mins,30mins,5mins	100 cycles	0/100
	High Humidity Heat Cycle	JIS C 7021 (1997) A-5	30℃→65℃ 90%RH 24hrs/1cycle	10 cycles	0/100
	High Temperature Storage	JIS C 7021 (1997) B-10	Ta=80℃	1000hrs	0/100
	Humidity Heat Storage	JIS C 7021 (1997) B-11	Ta=60℃ RH=90%	1000hrs	0/100
	Low Temperature Storage	JIS C 7021 (1997) B-12	Ta= -30℃	1000hrs	0/100
Operation Sequence	Life Test	JIS C 7035 (1985)	Ta=25℃ If=20mA	1000hrs	0/100
	High Humidity Heat Life Test	*	60℃ RH=90% If=20mA	500hrs	0/100
	Low Temperature Life test	*	Ta= -20℃ If=20mA	1000hrs	0/100
Destructive Sequence	Resistance to Soldering Heat	JIS C 7021 (1997) A-11	Tsol=260 ± 5℃,10sec (3mm from the base of the epoxy bulb)	1 time	0/20
	Solder ability	JIS C 7021 (1997) A-2	Tsol=235 ± 5℃,5sec (Using flux)	1 time (over 95%)	0/20
	Lead Pull/Bend Test	JIS C 7021 (1997)A-11	Load 2.5N (0.25kgf) 0°→90°→0° Bending 3 times	No noticeable damage	0/20

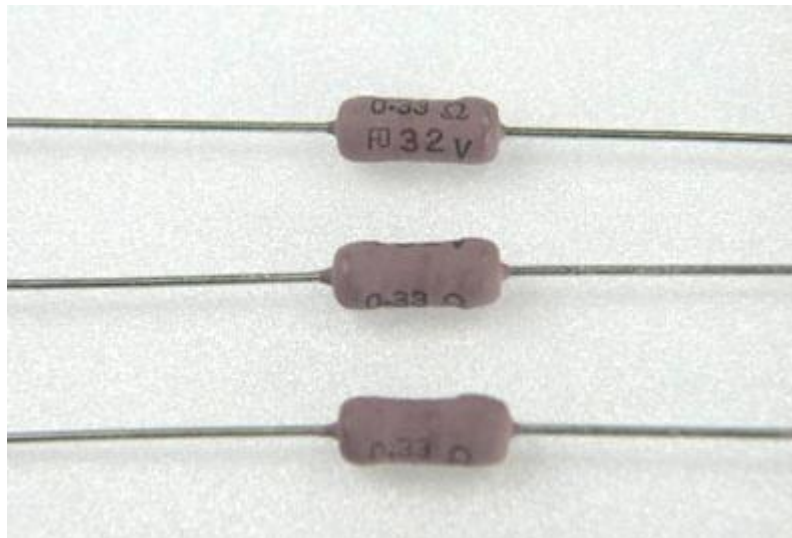
● Test Items And Results

* Refer to reliability test standard specification for in this line.

● Criteria for Judging The Damage

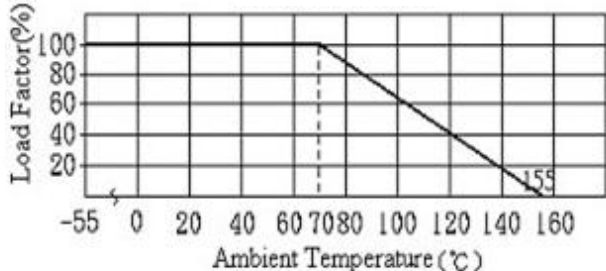
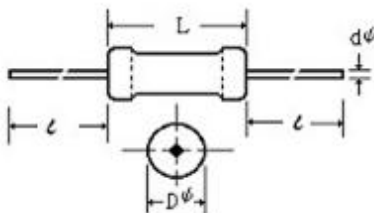
Item	Symbol	Test Condition	Criteria for Judgment	
			Min.	Max.
Forward Voltage	V _F	I _F =20mA	---	Initial data x 1.1
Reverse Current	I _R	V _R = 5V	---	Initial data x 2.0
Luminous Intensity	I _v	I _F =20mA	Initial data x 0.7	---

6. Resistor Specification (RMS 1/4W 200kΩ)



CHARACTERISTICS

ITEM	SPEC	REMARKS
Load life under high temperature	±1.5%	JIS C 5201-1 (4.25.1) Rated voltage at 70°C for 1,000 hours
Load life under high humidity	±5%	JIS C 5201-1 (4.24) Rated voltage at 40°C, 95% RH for 1,000 hours
Temp. coeff of resistance	$< 1K = \pm 500 \text{ PPM}/^{\circ}\text{C}$ $\leq 100K\Omega = \pm 300 \text{ ppm}/^{\circ}\text{C}$ $> 100K\Omega = \pm 200 \text{ ppm}/^{\circ}\text{C}$	JIS C 5201-1 Room temp. + 100°C, 30min
Short time overload	±1%	JIS C 5201-1 (4.13) 6.25 times the rated power for 5 seconds
Temperature cycling	±1%	JIS C 5201-1 (4.19) 5 cycles for -25°C±3°C(30min); room temp.(30min) ~ +85°C±3°C(30min) room temp. (30min)
Resistance to soldering heat	±1%	JIS C 5201-1 (4.18) 260°C±5°C for 10 seconds; 350°C±10°C for 3.5 seconds
Insulation resistance	>1,000MΩ	JIS C 5201-1 (4.6.1.1) 500 volt Insulation test 1min

Pulse withstanding voltage	$\pm 20\%$	■The following discharge cycle is repeated in the circuit of the left fig. 2.5 sec. ON 2.5 sec. OFF 50 cycles. With following DC pulse test voltage ■ Pulse voltage:1/6W,S1/4W: 3KV. $\geq 1/4W$: 100KΩ: (3KV); 100KΩ-620KΩ: (5KV); > 620KΩ: (10KV)
DERATING CURVE 		 Various type of forming & taping are available Coating color: RMU1/4W,RMU1/6W \ dark blue, other \ pink◦

CHARACTERISTICS

Model	Power Rating	Resistance Range E-24	Maximum Working Voltage	Dielectric Withstandi ng Voltage	Dimension (mm)			
	(W)	Ω			L	D ϕ	t	d ϕ
RMU1/4W 、 RMS1/2W	1/4,1/2	10 Ω ~ <100M	1600V	700V	6 ± 0.3	2.4 ± 0.1	28 ± 2	0.6 ± 0.05

[illegible]