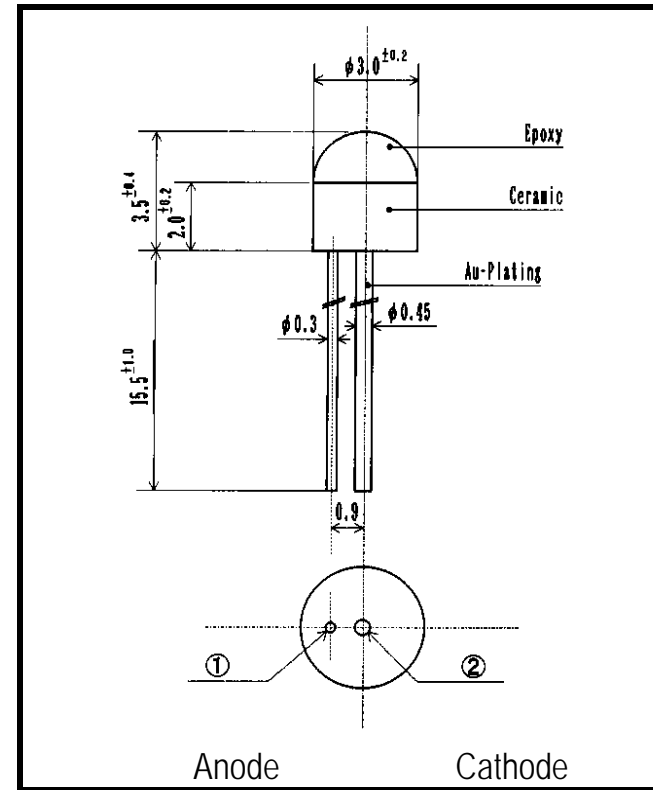


VSC590M3A

Visible Light Emitting Diode



- FEATURES**
- High-Power output
 - Wide Viewing Angle
 - Compact
- APPLICATIONS**
- Display
 - Indicators
 - Light-source for Sensor
 - Optical Switches

1. ABSOLUTE MAXIMUM RATINGS(Ta=25)

ITEM	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	30	mA
Forward Current (Pulse)*1	IFP	0.3	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	80	mW
Operating Temp.	Topr	-20 TO 80	
Storage Temp.	Tstg	-30 TO 100	
Junction Temp.	Tj	100	
Lead Soldering Temp.*2	Tls	260	

*1:Tw=10uS,T=10mS

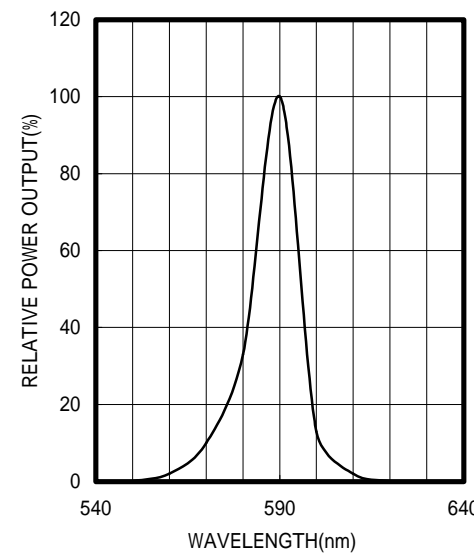
*2:Time 5 Sec max,Position:Up to 3mm from the body

2.ELECTRICAL & OPTICAL CHARACTERISTICS (Ta=25)

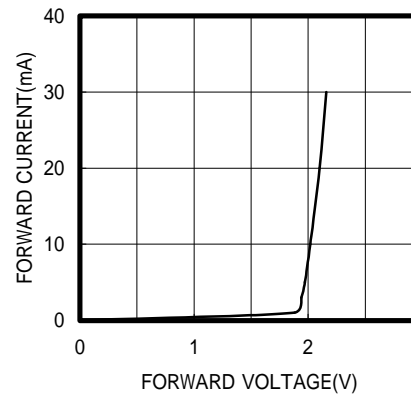
ITEM	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=20mA	0.5	0.9		mW
Forward Voltage	VF	IF=20mA		2.1	2.5	V
Reverse Current	IR	VR=5V			100	μA
Peak Wavelength	λ	IF=20mA		590		nm
Spectral Line Half Width		IF=20mA		15		nm
Half Intensity Beam Angle		IF=20mA		±80		deg.
Rise Time	Tr	IFP=20mA		-		nS
Fall Time	Tf	IFP=20mA		-		nS
Junction Capacitance	Cj	1MHz ,V=0V		10		pF
Temp. Coefficient of PO	P/T	IF=10mA		-0.7		%/
Temp. Coefficient of VF	V/T	IF=10mA		-1.8		mV/

Dimensions (Unit:mm)

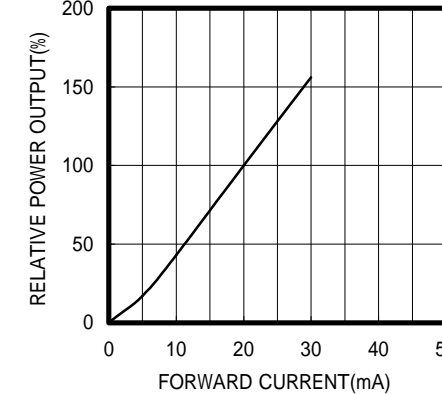
SPECTRAL OUTPUT



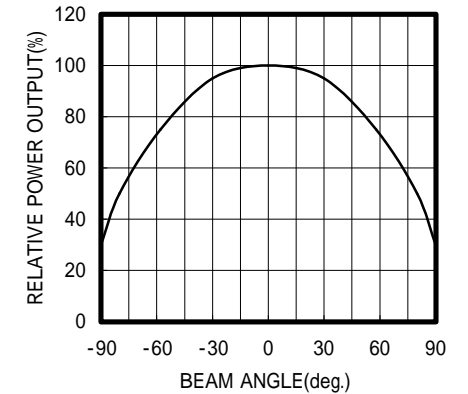
FORWARD I-V CHARACTERISTICS



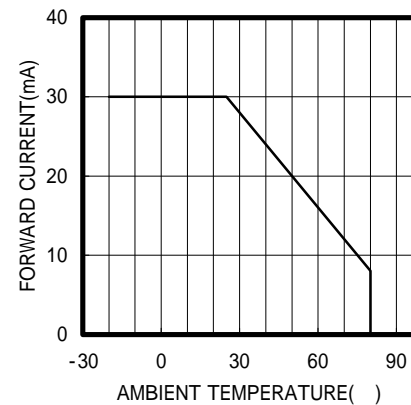
RELATIVE POWER vs FORWARD CURRENT



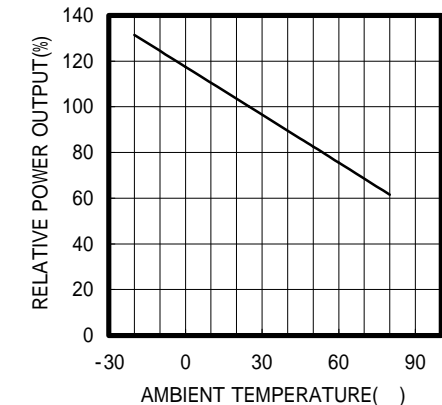
RADIATION PATTERN



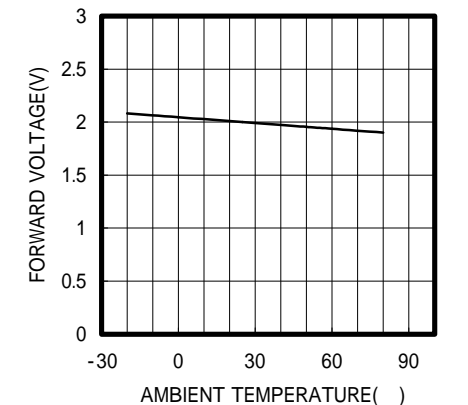
THERMAL DERATING CURVE



POWER OUTPUT vs TEMPERATURE IF=10mA



FORWARD VOLTAGE vs TEMPERATURE IF=10mA



OPTRANS

2-6-11 MASUKATA,TAMA-KU, KAWASAKI 214-0032.JAPAN
TEL.81(44)932-6491 / FAX.81(44)932-8281
E-mail optrans@mb.kcom.ne.jp