

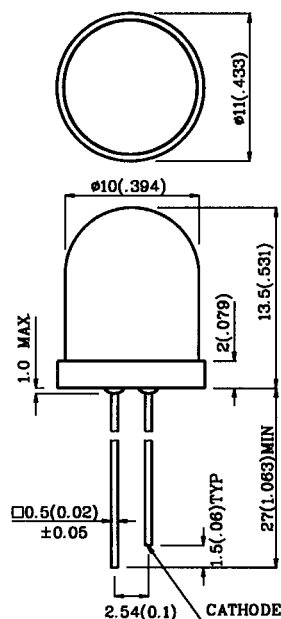
10mm SUPER BRIGHT BIG LAMPS

SUPER BRIGHT RED LMR01x

❖ Dimensions

❖ Features

ULTRA BRIGHTNESS.
10mm DIAMETER BIG LAMP.
WIDE VIEWING ANGLE.
I.C. COMPATIBLE.
BOTH DIFFUSED AND WATER CLEAR LENS ARE
AVAILABLE.
RELIABLE AND RUGGED.
LONG LIFE - SOLID STATE RELIABILITY.



❖ Description

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode

Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.

❖ Selection Guide

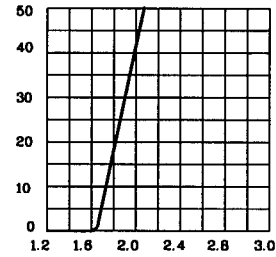
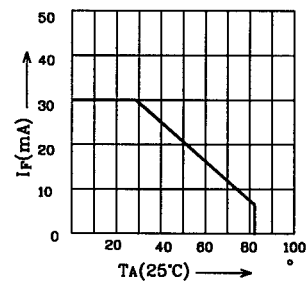
Part No.	Dice	Case-Color	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Max.	201/2
LMR01DB	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	120	200	60°
LMR01DC		RED DIFFUSED	200	350	60°
LMR01DD		RED DIFFUSED	350	450	60°
LMR01DE		RED DIFFUSED	450	550	60°
LMR01DF		RED DIFFUSED	550	560	60°
LMR01DG		RED DIFFUSED	650	800	60°
LMR01WB	SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	500	1000	40°
LMR01WC		WATER CLEAR	1000	1600	40°
LMR01WD		WATER CLEAR	1600	2000	40°
LMR01WE		WATER CLEAR	2000	3000	40°

Note:
1. $\theta_{1/2}$ is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

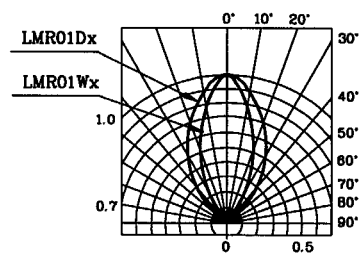
LMR01x Series

❖ Super Bright Red

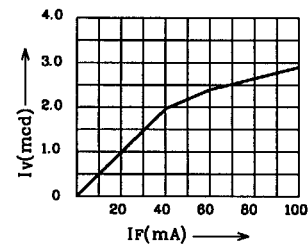
Forward current derating curve



Radiation Characteristics



Luminous Intensity Vs. Forward Current



LMR01x Series

❖Electrical / Optical Characteristics at TA=25°C

Parameter	Super Bright Red	Units
Power dissipation	100	mW
DC Forward Current	30	mA
Peak Forward Current $[\tau \leq 10\mu s]$	150	mA
Reverse Voltage	5	V
Operation/Storage Temperature	-40° To +85°C	
Lead Solder Temperature [4mm below package base]	260°C For 5 Seconds	

❖Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Dice	Typ.	Max.	Units	Test Conditions
Peak Wavelength	λ_{peak}	Super Bright Red	660		nm	IF=20mA
Spectral Line Halfwidth	$\Delta\lambda_{1/2}$	Super Bright Red	20		nm	IF=20mA
Capacitance	C	Super Bright Red	95		pF	VF=0V;f=1MHz
Forward Voltage	VF	Super Bright Red	1.85	2.5	V	IF=20mA
Reverse Current	IR	Super Bright Red	10		uA	VR = 5V

