ROHM SEMICONDUCTOR

New Product Bulletin

PICOLED™-mini Series

Ultra-compact chip LEDs

Halogen Free · RoHS Directive Compliance · Pb Free

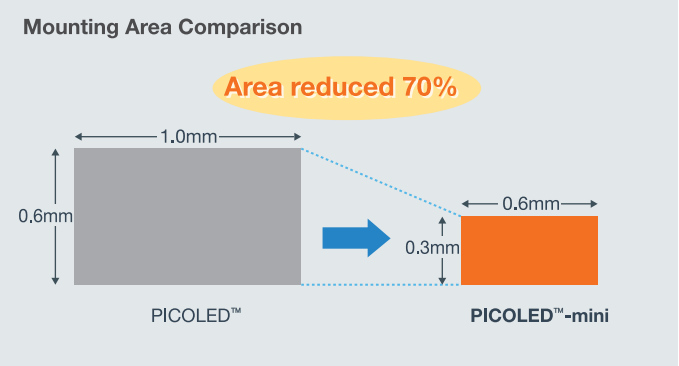
The industry's smallest* chip LEDs

This lineup features equivalent brightness as the 1006-sized PICOLED™ series in a smaller form factor.
Recommended for mobile phones and other compact applications.

*ROHM SEPTEMBER 2010 survey

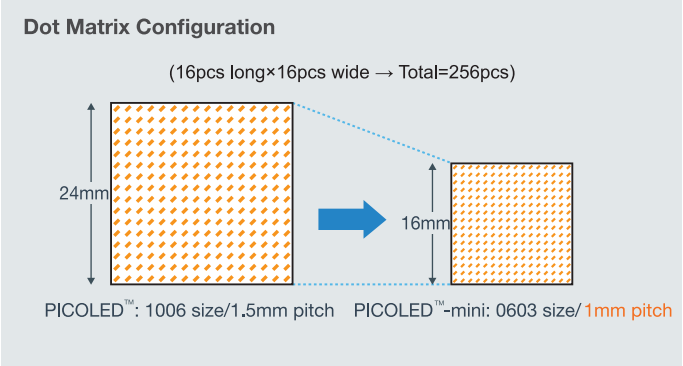
Reduces mounting area by 70%

Maintains equivalent brightness as PICOLED™ series units while reducing mounting area by 70%.

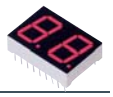


Enables high density mounting

PICOLED™-mini LEDs feature a pitch of only 1mm, enabling higher density mounting and greater resolution in dot matrix arrays compared with 1006-sized PICOLED™ series with a 1.5mm pitch.

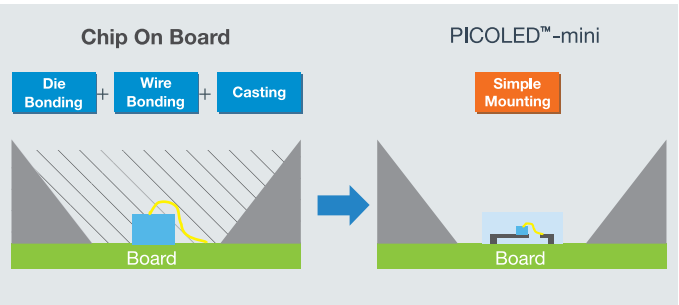


Replaces COB processing



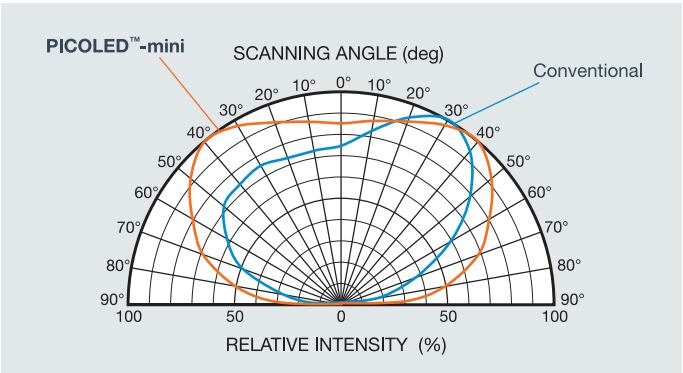
The extremely small package size makes them the ideal replacement for COB* applications, such as 7-segment and dot matrix modules - eliminating the need for die bonding, wire bonding, and casting.

*COB (Chip On Board): A technology that mounts the semiconductor element onto the board directly, without packaging, and connects it to the circuit.



Symmetrical directivity

Due to the extremely small package size (the industry's smallest), there is no significant differences in the directivity between the left and right, resulting in superior symmetry. This makes them ideal for use as indicator light sources.



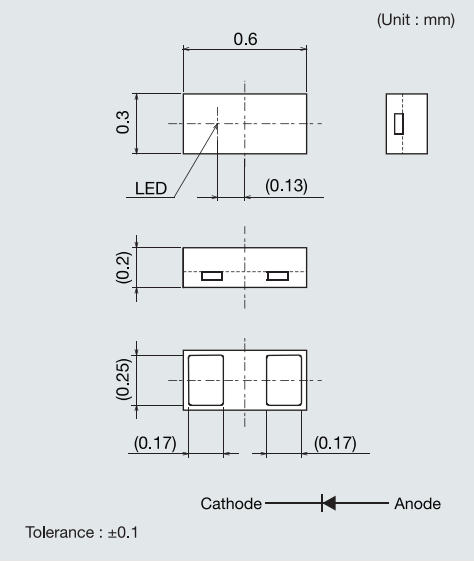
PICOLED™-mini Series

Specifications

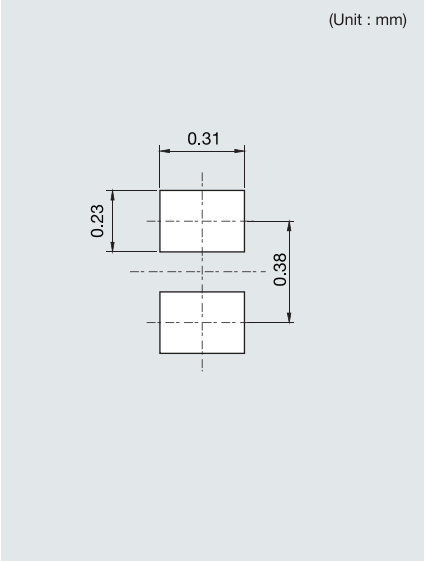
Part No.	Element Materials	Emitted Color	Absolute Maximum Ratings (Ta=25°C) Permissible Loss P_D (mW)	Forward Current I_F (mA)	Peak Fwd Curr. I_{FP} (mA)	Operating Temp. Topr (°C)	Storage Temp. Tstg (°C)	Electrical and Optical Characteristics: Forward Voltage Typ.(V)	I_F(mA)	Emitted Wavelength Min.(nm)	Typ.(nm)	Max.(nm)	I_F(mA)	Brightness Typ.(mcd)	I_F(mA)
CSL0101VT	AlGaInP on GaAs	Red	50	20	100*	-40 to 85	-40 to 100	2	20	625	630	635	20	60	20
CSL0101UT										615	620	625		85	
CSL0101DT		Orange	52					2.1		602	605	608		100	
CSL0101YT		Yellow								587	590	593		130	
CSL0101MT		Yellow-Green								569	572	575		35	
CSL0101PT		Green								557	560	563		13	
CSL0101ET	InGaN on SiC	Blue-Green	68					3	5	520	527	535	5	71	5
CSL0101BT		Blue	66					2.9		464	470	476		17	

*Duty 1/10 1kHz

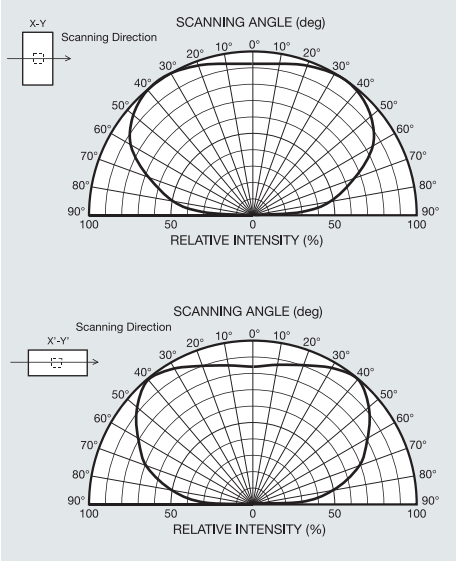
Dimensions



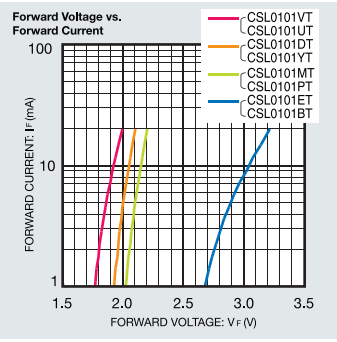
Land Pattern

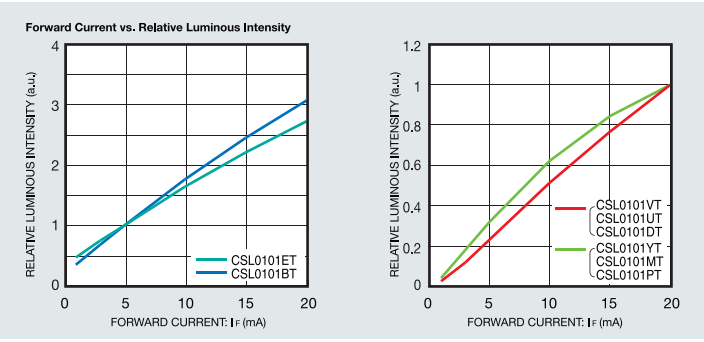


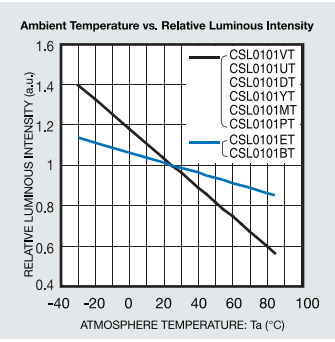
Directivity

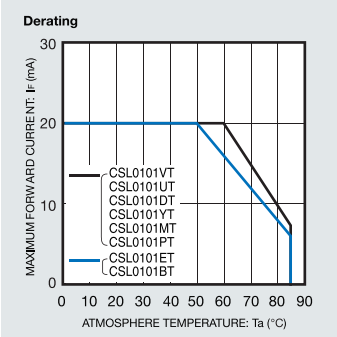


Electrical Characteristics Curves









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The content specified in this document is correct as of Februaly 9th 2011.

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