

Product Announcement

FOR IMMEDIATE ANNOUNCEMENT

Sharp Expands its Family of White LEDs with Four High-brightness Devices

GM5BW9733xA (Series) offers low power consumption and reflow compatibility

Sharp has announced the expansion of its family of white Light Emitting Diodes (LED) with four new, 3-chip devices (GM5BW97330A, GM5BW97331A, GM5BW97332A, and GM5BW97333A) that can provide high brightness levels (in order) of 6.40 cd, 7.0 cd, 5.80 cd, and 5.10 cd at $I_F = 20$ mA/chip (60 mA total).

The GM5BW9733xA (Series) Light Source LEDs are high performance, energy-efficient devices which can handle high thermal conditions. The exposed pad design provides for excellent heat transfer from the package to the motherboard. It is available in color temperatures (in order) of 5300 K, 5000 K, 6500 K, and 11500 K.



These devices are packaged in a small PLCC4 package which is compatible with reflow soldering. To facilitate easy pick and place assembly, the LEDs are also available in EIA-compliant tape and reel.

These new devices are ideally suited for many consumer and commercial applications that traditionally have used conventional incandescent bulbs or other technologies. With package dimensions of just 3.2 mm x 2.8 mm x 1.9 mm, they are also targeted for space-limited applications requiring high brightness levels.

Features

- 17 lumen output in a PLCC4 package (Typical)
- 3-chip devices, given output at $I_F = 20$ mA/chip (Total – 60 mA)
- White Color (achieved via InGaN/SiC Blue LED chips in combination with Yellow Phosphor)
- Energy efficient
- Exposed pad for excellent heat transfer
- Suitable for reflow soldering process
- Long operating life
- Wide emission angle - 120°

Applications

- General indication (indoor use only)
- Office Automation equipment
- Audio/visual equipment
- Home appliances
- Portable lighting
- Architectural lighting
- Landscape lighting
- Decorative lighting

Typical performance at 25°C:

PARAMETER	GM5BW97330A	GM5BW97331A	GM5BW97332A	GM5BW97333A
Forward Voltage (V_F)	3.2 TYP., 3.5 MAX.			
Color Temperature	5300 K	5000 K	6700 K	11500 K
Color Coordinates (X, Y)	(0.338, 0.356)	(0.335, 0.344)	(0.312, 0.311)	(0.283, 0.262)
Luminous Intensity I_V (cd)	6.40	7.0	5.80	5.10
I_F (mA)/chip; Total (all 3 on, mA)	20; 60			
Package (L x W x Thickness)	3.2 x 2.8 x 1.9 mm			

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Designed for use with automated Lead (Pb)-Free* production lines, the new surface mount devices are compatible with reflow soldering processes at temperatures up to 295°C.

The above are only partial specifications. Full specifications for these parts are available from your Sharp Distributor or online at the Sharp Microelectronics of the Americas website (www.SHARPsma.com). These parts are RoHS* compliant.

Please contact Abdul Aslami at AslamiA@sharpsec.com with any questions you may have regarding these new additions to the Sharp product line.

Availability and pricing:

Sharp's GM5BW97330A, GM5BW97331A, GM5BW97332A, and GM5BW97333A are now in mass production. Sample prices are \$0.59.

About Sharp Microelectronics of the Americas

Sharp Microelectronics of the Americas (SMA) drives innovative LCD, optoelectronics, memory, imager, and RF components to market. The world's leading manufacturers of consumer and business technologies look to SMA for the products, expertise, and worldwide support they need to make their visions a reality. SMA, in Camas, Washington, is the microelectronics sales and marketing division of Sharp Electronics Corporation, a wholly owned subsidiary of Sharp Corporation. For more information, visit us at www.SHARPsma.com.

* The Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive (2002/95/EC). This directive took effect July 1, 2006.