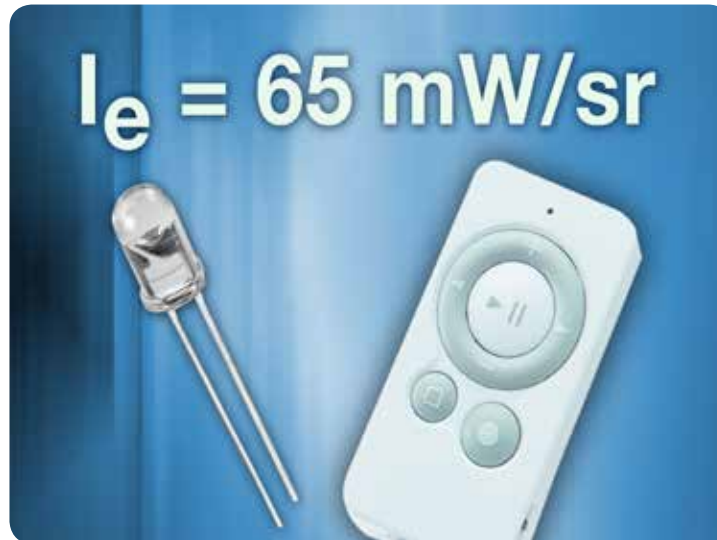


940 nm High-Speed, High-Power Emitters with High Radiant Intensity, Tight Angular Distribution of Emitted Light and Power



FEATURES

- Radiant intensity up to 65 mW/sr
- Optical power of 40 mW at 100 mA
- Switching time of 15 ns

BENEFITS

- Reduces the number of emitters required to produce equal or greater optical power
- Capable of supporting up to 16 Mbit/s data communication
- Automotive AEC-Q101 qualified

APPLICATIONS

- Infrared remote control for digital cameras, notebook PCs, and MP3/video players
- Data and audio transmission
- In-car entertainment systems
- Light barrier or interrupter applications

RESOURCES

- Datasheets:
 - Commercial grade: [VSLB3940](#), [VSMB14940](#), VSMB14942
 - Automotive grade: [VSMB1940X01](#), [VSMB2000X01](#), [VSMB2020X01](#), [VSMB3940X01](#), [VSMB2943GX01](#), [VSMB2943RGX01](#), [VSMB2943SLX01](#)
- Optoelectronics portfolio: www.vishay.com/optoelectronics/
- For technical questions, contact emittertechsupport@vishay.com
For Sales contact www.vishay.com/doc?99914



SEVEN PACKAGES
3 mm T1

Represents an 8 % performance improvement over the 5 mm TSAL6200 in a 40 % smaller form factor

- On-axis radiant intensity of 65 mW/sr typical and optical power of 40 mW


[VSLB3940](#)
1.8 mm SMD

Radiant intensity of 40 mW/sr is 150 % higher than next best competing device

- Gullwing and reverse gullwing and sidelooker


[VSMB2020X01](#)

[VSMB2000X01](#)

[VSMB2943SLX01](#)
PLCC2

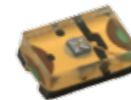
140 % higher at 100 mA compared to next best equivalent device

- Radiant intensity of 13 mW/sr at 100 mA and 130 mW/sr at 1 A


[VSMB3940X01](#)
0805

150 % higher than next best competing device

- Radiant intensity of 6 mW/sr


[VSMB1940X01](#)
SMD Side View

1.2 mm low profile

- Radiant intensity up to 35 mW/sr


[VSMB14940, VSMB14942](#)
FIVE STAR PERFORMANCE

PART NUMBER	Package	Peak Wavelength (nm)	Radiant Intensity (mW/sr) ¹	Optical Power (mW) ¹	Switching Times (ns)	Angle of Half Intensity (°)	Forward Voltage (V)	Spectral Bandwidth (nm)
VSLB3940	3 mm T1	940	65	40	15	± 22	1.35	25
VSMB14940²	SMD side view	940	35	28	15	± 9	1.33	30
VSMB14942^{2,3}	SMD side view	940	27	28	15	± 16	1.28	30
VSMB1940X01	0805	940	6	40	15	± 60	1.35	25
VSMB2000X01	Reverse gullwing	940	40	40	15	± 12	1.35	25
VSMB2020X01	1.8 mm (T¾) gullwing	940	40	40	15	± 12	1.35	25
VSMB2943GX01²	Gullwing	940	20	40	15	± 25	1.35	25
VSMB2943RGX01²	Reverse gullwing	940	20	40	15	± 25	1.35	25
VSMB2943SLX01²	Side looker	940	20	40	15	± 25	1.35	25
VSMB3940X01	PLCC2	940	13	40	15	± 60	1.35	25

¹ at 100 mA

² at 70 mA

³ Pending release