



# Stanley Electric's Ultra High-Power IR LEDs

## *Automotive quality High-power*

*High radiant flux / low thermal resistance, high reliability package*



VMNN110CMS



VM*N1107MS



VM*N1108MS

## ◆Applications

### Automotive



DMS (Driver Monitoring System)



Gesture control



OMS (Occupancy Monitoring System)

## ◆Features

- Suitable for automotive interior applications (AEC-Q102 compliant)
- Light distribution variations to suit various applications (narrow light distribution 45°, 60° / wide light distribution 120°)
- Industry-leading high luminous efficiency
- Low thermal resistance due to high heat dissipation design

## ◆Specifications

● Under Development

| 品名 | | | ● VMNN 110CMS | ● VMFN 1107MS | VMHN 1107MS | ● VMFN 1108MS | VMHN 1108MS | ● VMNN 1108MS | Unit |
|---|---|---|---|---|---|---|---|---|---|
| Electrical, optical characteristics | Peak wavelength | λp | 945 | | | | | | nm |
| | Directivity | $2\theta_{1/2}$ | 45 | 60 | | 120 | | | deg. |
| | Radiation intensity | $I_e$ | 1,160 | 440 | 750 | 230 | 420 | 470 | mW/sr |
| | Light output | $\Phi_e$ | 1,700 | 950 | 1,630 | 950 | 1,650 | 1,700 | mW |
| | Forward voltage | $V_F$ | 2.9 | 1.5 | 2.9 | 1.5 | 2.9 | 2.9 | V |
| | Response speed | tr/tf | 15 / 15 | | | | | | nsec |
| Absolute maximum ratings | Max. forward current | $I_F$ | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | mA |
| | Pulsed forward current | $I_{FRM}$ | 5,000 ※1 | | | | | | mA |
| | Operating temp. | Topr | -40～+125 | | | | | | ℃ |
| | Storage temp. | Tstg | -40～+125 | | | | | | ℃ |
| Thermal resistance | | $Rth_{(j-s)}$ | 5 ※2 | | | | | | ℃/W |
| Outer dimensions | | L×W×H | 3.8 × 3.8 × 3.2 | 3.8 × 3.8 × 2.8 | | 3.8 × 3.8 × 2.1 | | | mm |

Ta=25℃ $I_F$=1,000mA ※1 Pulsed current: 0.1ms pulse 1/100 duty ※2 Thermal resistance: junction-soldered part

STANLEY ELECTRIC CO., LTD.

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https://www.stanley-components.com/en/