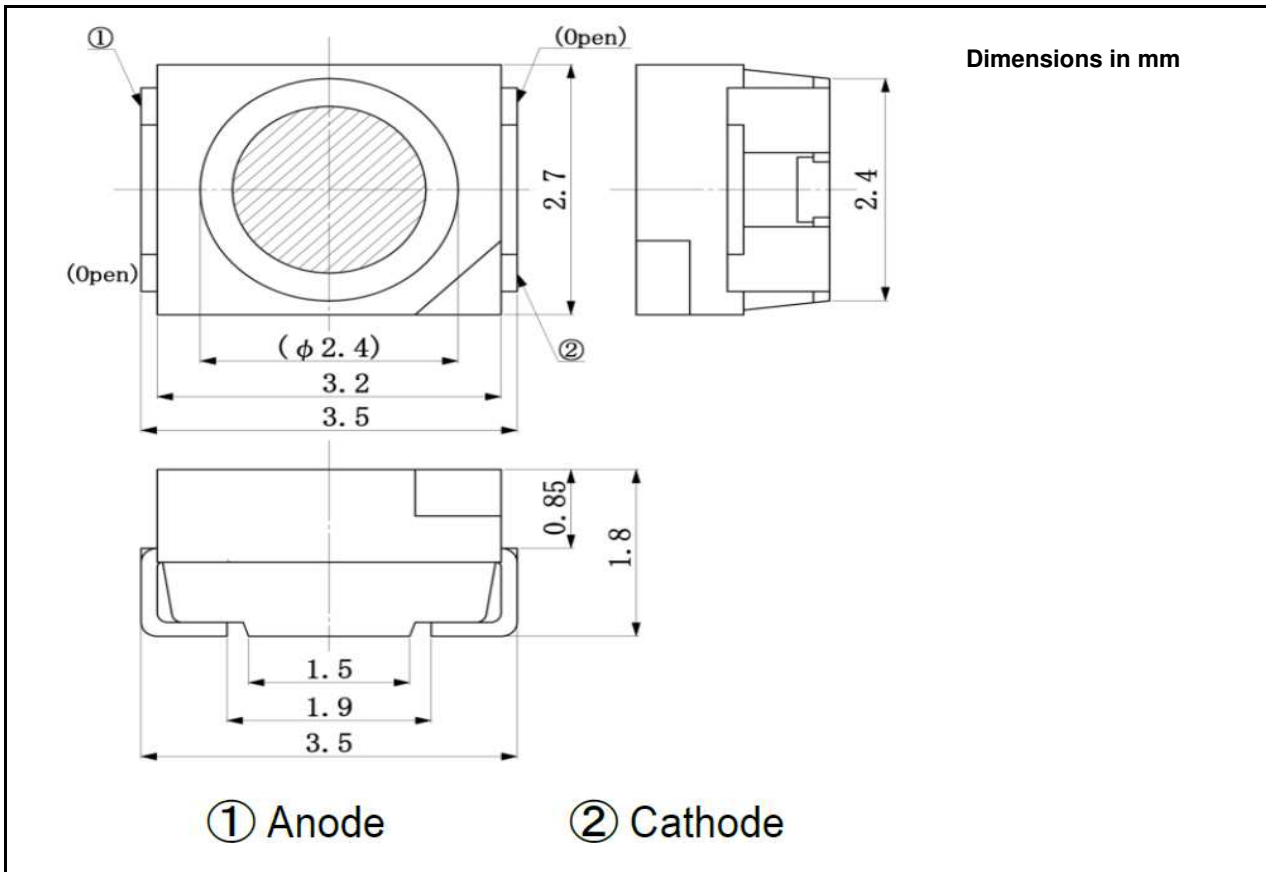


**Infrared SMD-LED**

**EOLS-1450-995**

Rev. 02, 2017

Radiation	Type	Case
Infrared	InGaAs/InP, MQW	SMD 3527 (1411), PLCC4



**Absolute Maximum Ratings**

T<sub>amb</sub> = 25°C, unless otherwise specified

Parameter	Test Conditions	Symbol	Value	Unit
Peak forward current	t <sub>p</sub> ≤ 10 μs, T=10 ms	I <sub>FP</sub>	500	mA
Continuous forward current		I <sub>F</sub>	50	mA
Reverse voltage		V <sub>R</sub>	5	V
Operating temperature range		T <sub>amb</sub>	-20 to +80	°C
Storage temperature range		T <sub>stg</sub>	-30 to +100	°C
Power dissipation		R <sub>thJA</sub>	120	mW
Lead soldering temperature	T=5 s, 3 mm from body	T <sub>sld</sub>	260	°C



We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

**Infrared SMD-LED**

**EOLS-1450-995**

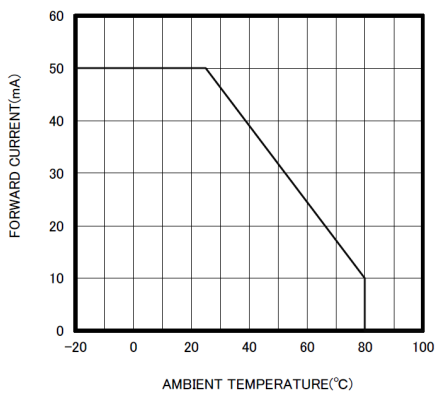
Rev. 02, 2017

**Optical and Electrical Characteristics**

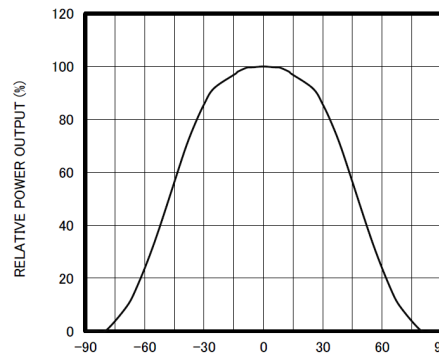
T<sub>amb</sub>= 25°C, unless otherwise specified

Parameter	Test cond.	Symbol	Min	Typ	Max	Unit
Forward voltage	I <sub>F</sub> =20 mA	V <sub>F</sub>		0.7	0.95	V
Forward voltage	I <sub>F</sub> =50 mA	V <sub>F</sub>		0.8	1.0	V
Reverse current	V <sub>R</sub> =5 V	I <sub>R</sub>			100	μA
Radiant power	I <sub>F</sub> =20 mA	Φ <sub>e</sub>		1.8		mW
Radiant power	I <sub>F</sub> =50 mA	Φ <sub>e</sub>		3.5		mW
Peak wavelength	I <sub>F</sub> =20 mA	λ <sub>p</sub>	1400	1450	1500	nm
FWHM	I <sub>F</sub> =20 mA	Δλ <sub>0.5</sub>		120		nm
Viewing angle	I <sub>F</sub> =20 mA	φ		±45		deg
Switching times	I <sub>F</sub> =20 mA	t <sub>r</sub> , t <sub>f</sub>		40		ns

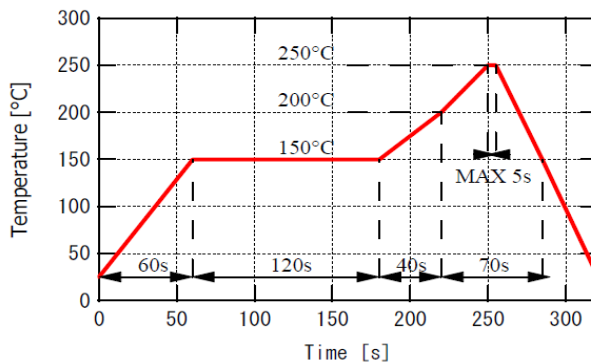
THERMAL DERATING CURVE



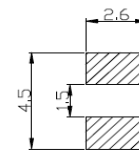
RADIATION PATTERN



Recommended reflow soldering profile



Recommended Land Layout (Unit: mm)



Art. No. 133 127



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