

Peak Emission Wavelength: 1020nm



### Description

- Size 3.8 (W) x 3.8 (L) x 0.9 (H) SMD 3838 Case
- Circuit substrate: AlN ceramics
- Devices are RoHS conform
- Lead free solderable, soldering pads: silver plated
- Taped in 16 mm blister tape, cathode to transporting perforation
- All devices are sorted into radiant intensity classes
- Taping: face up (T)
- High radiation intensity types

### Absolute Maximum Ratings (Ta=25°C)



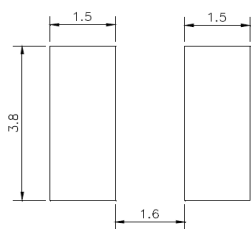
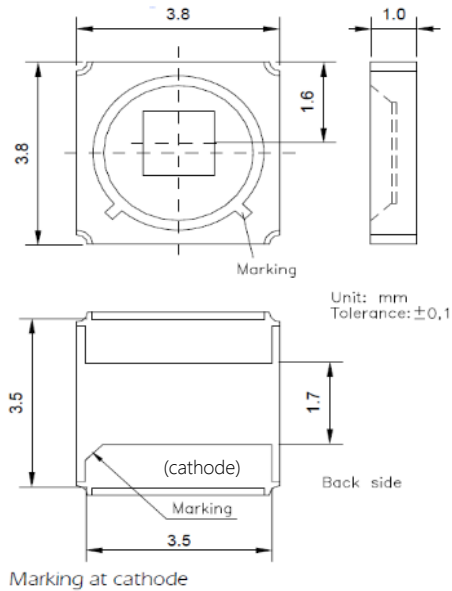
ITEMS	SYMBOL	RATINGS	UNIT
Forward DC Current	If	500	mA
Peak Forward Current *	Ifp	1000	mA
Reverse Voltage	Vr	5	V
Reverse Current	Ir	100	uA
Operating Temperature	Top	-40 to +85	°C
Storage Temperature	Tst	-40 to +85	°C
Thermal Resistance RthJA		10	K/W

\* tp ≤ 100 us, T=1ms

### Electrical & Optical Characteristics (Ta = 25°C)

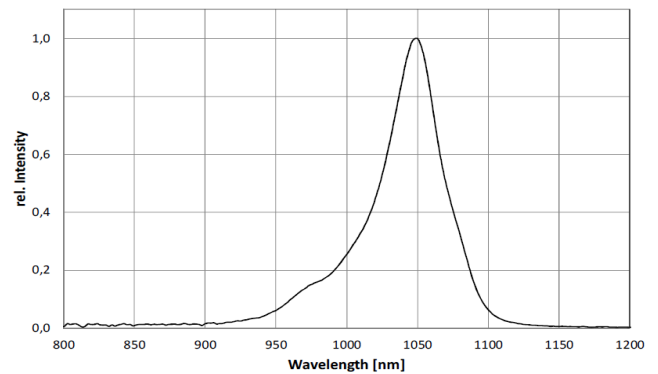
ITEMS	SYMBOL	MIN	TYP	MAX	UNIT
Forward Current	If	--	350	--	mA
Forward Voltage	Vf	--	1.2	1.5	V
Peak Wavelength	λp	1040	1050	1060	nm
Radiant Power	Φe	--	38	--	mW
Radiant Intensity	Ie	8	--	17	mW/sr
Spectral Bandwidth	Δλ	--	50	--	nm
Viewing Angle	φ	--	120	--	deg

Package Dimensions

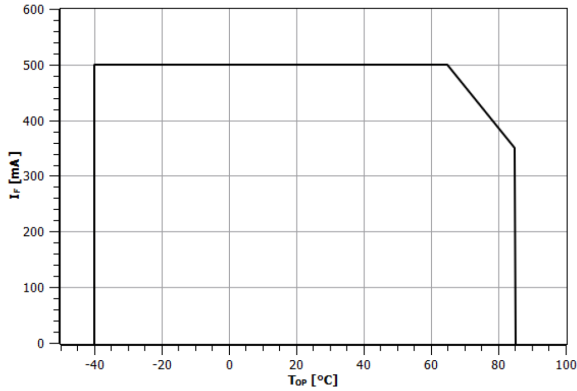


recommended max. thermal resistance  
device-ambient: 20 K/W

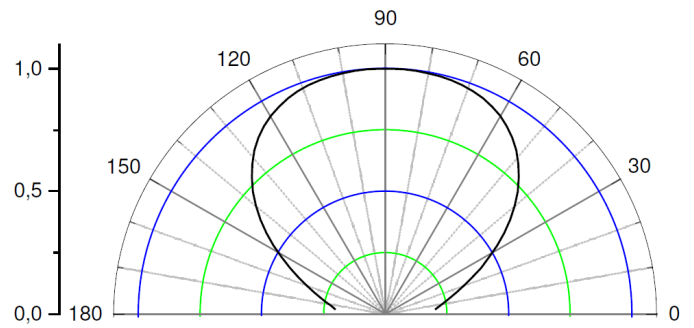
**Recommended Soldering Pattern**



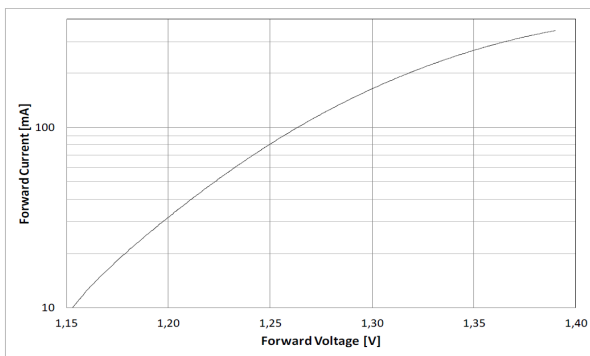
**Spectrum @ 350 mA**



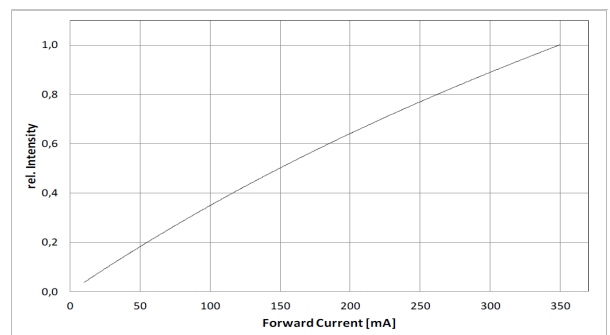
**Maximal forward current (DC) characteristic**



**View angle**

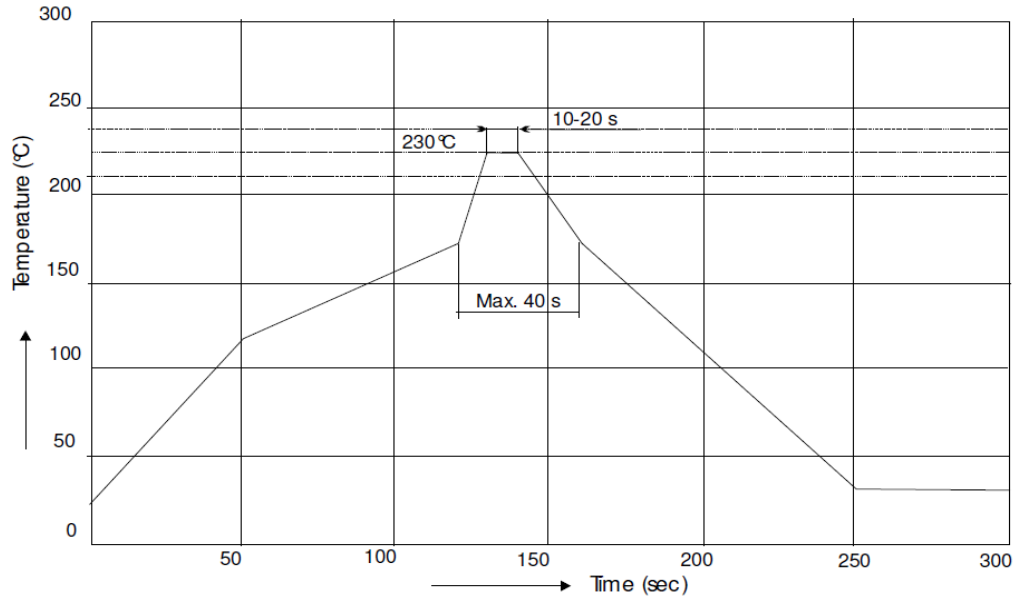


**$U_F - I_F$  characteristic**

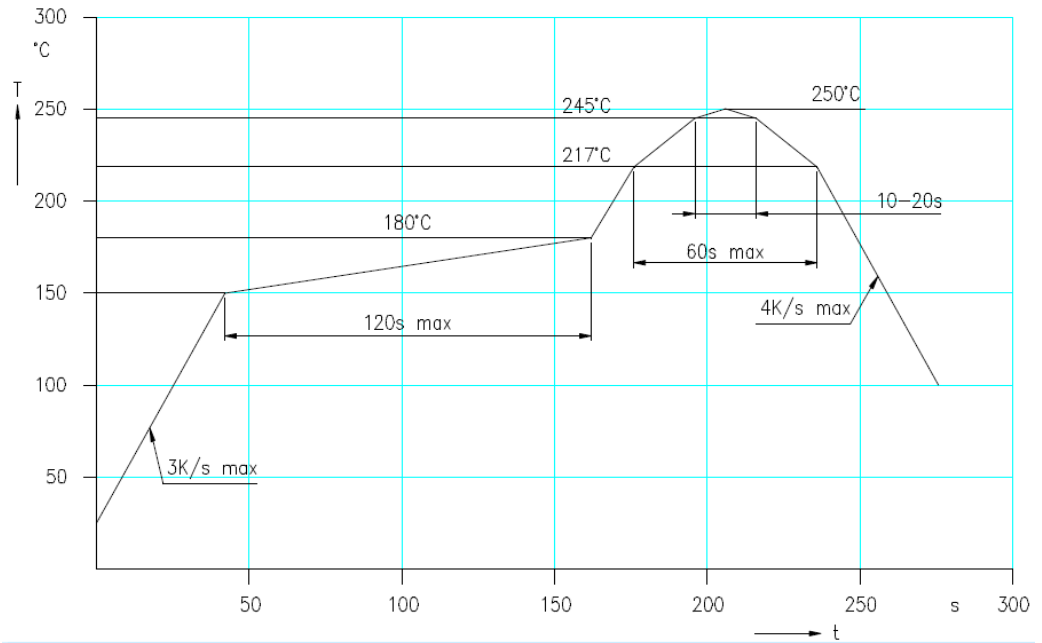


**$I_F - I_{e, rel}$  characteristic**

**IR reflow soldering profile**



**IR reflow soldering profile for lead free soldering**



**Manual soldering:**  
max power of iron 25 W / 3 s / 300°C