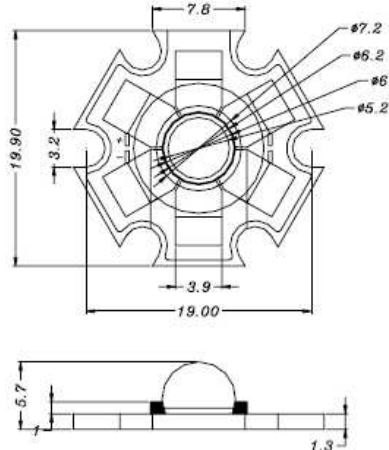


# BS Elektronik Service GmbH

## SE-3W-SH-12V

### Package Dimensions



UNIT: mm  
TOLERANCE:  $\pm 0.1$  mm

- Notes: 1. All dimensions are in millimeters (inches).  
2. Tolerance is  $\pm 0.25$ mm(.010") unless otherwise noted.  
3. Protruded resin under flange is 1.0mm(.04") max.  
4. Lead spacing is measured where the leads emerge from the package.  
5. Specifications are subject to change without notice.

### Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

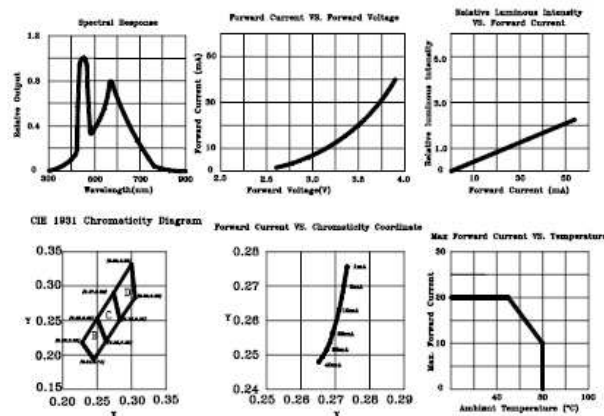
Parameter	Maximum Rating	Unit
DC Forward Current/Power Dissipation	350/3	mA/W
Reverse Voltage( $V_r$ )	12	V
Peak Pulsed Forward Current	500	mA
LED Junction Temperature	135	$^\circ\text{C}$
Storage & Operating Temperature	$-40^\circ\text{C}$ to $+105^\circ\text{C}$	
Electrostatic Discharge Classification(HBM)	$\pm 5000$ V	

\*The best current for long last : 16mA

### Electrical / Optical Characteristics at $T_A=25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous or Radiant Flux	$I_V$	65		105	lm	$I_F=350\text{mA}$
Viewing Angle	$2\theta_{1/2}$	60	70		deg	$I_F=350\text{mA}$
Chromaticity Coordinates	X		0.30			$I_F=350\text{mA}$
	Y		0.33			$I_F=350\text{mA}$
Forward Voltage	$V_F$			12	V	$I_F=350\text{mA}$
Reverse Current	$I_R$			10	$\mu\text{A}$	$V_R = 5\text{V}$

### TYPICAL ELECTRON-OPTICAL CHARACTERISTIC CURVES $25^\circ\text{C}$ Free Air Temperature Unless Otherwise Specified



## Reliability Test Item and Conditions

### • Results of Reliability Test

No	Item	Test Condition	Test Hours/Cycles	Sample No	Ac / Re
1	DC Operating Life	$I_F : 350\text{mA}$	1,000 HRS	20 PCS	0 / 1
2	High Temperature Storage	Temp : $100^\circ\text{C}$	1,000 HRS	20 PCS	0 / 1
3	Low Temperature Storage	Temp : $-40^\circ\text{C}$	1,000 HRS	20 PCS	0 / 1
4	Thermal Shock Test	$-40^\circ\text{C} \longleftrightarrow 80^\circ\text{C}$ 5min 8secs 5min	300 CYCLES	20 PCS	0 / 1
5	Temperature Cycle	$-40^\circ\text{C} \sim 25^\circ\text{C} \sim 100^\circ\text{C} \sim 25^\circ\text{C}$ 30min 5min 30min 5min	100 CYCLES	20 PCS	0 / 1
6	Temp. & Humidity bias	$T_A=85^\circ\text{C}, \text{RH}=85\%, I_F=100\text{mA}$	500 HRS	20 PCS	0 / 1

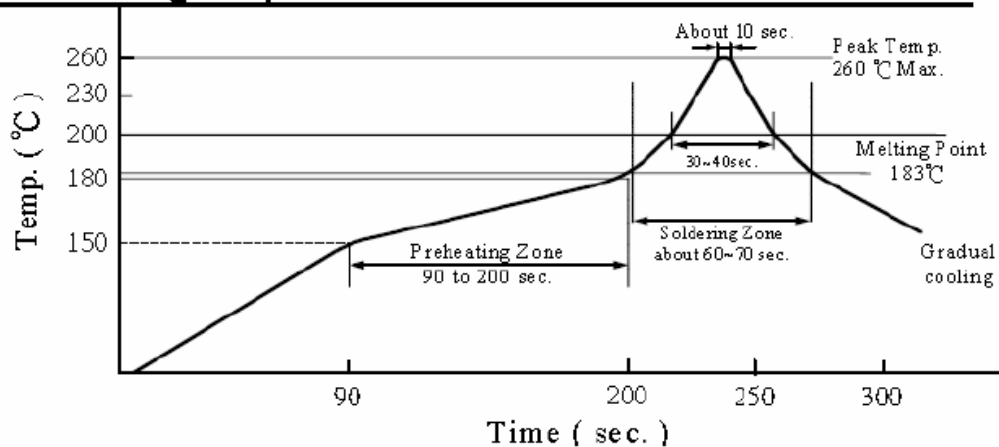
### • The Reliability Criteria of SMD LED

Item	Symbol	Test Condition	Limit	
			Min.	Max.
Forward Voltage	$V_F$	$I_F : 350\text{mA}$	-	U.S.L.*1.1
Reverse Current	$I_R$	$V_R : 12\text{V}$	-	U.S.L.*2
Luminous Intensity	$I_V$	$I_F : 350\text{mA}$	L.S.L.*0.7	-

\*U.S.L. : Upper Standard Level

\*L.S.L. : Lower Standard Level

### commended Soldering Temperature Time Profile



### Spatial Distribution

