

SMAL850D-60

SMD type Infrared illuminator on AlN ceramics

SMAL850D-60 is a wide viewing and extremely high output power illuminator assembled with a total of 60 high efficiency AlGaAs diode chips, mounted on an AlN ceramics and covered with clear silicone resin. These devices are designed for high current operation with proper heat sinking to improve thermal conductive efficiency.

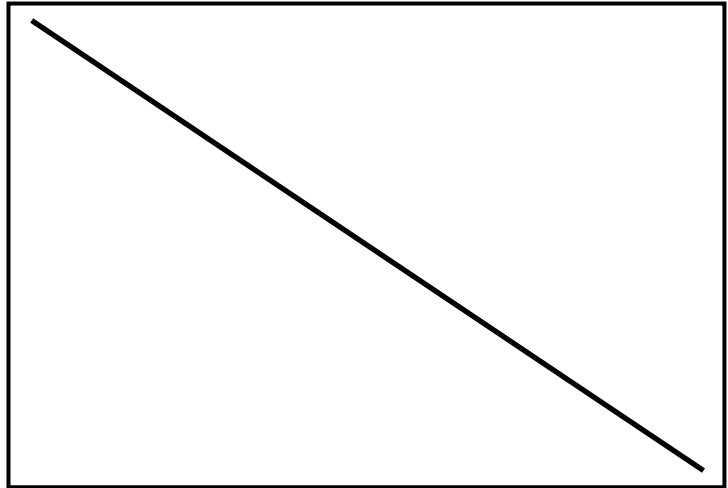
◆ Features

- 1) High reliability
- 2) Compact AlN ceramics PCB
- 3) High output power at 850nm

◆ Specifications

- 1) Product name IR illuminator
- 2) Spec. No. SMAL850D-66
- 3) Chip
 - (1) Material AlGaAs
 - (2) Peak wavelength 850m
- 4) Package
 - (1) PCB AlN ceramics
 - (2) Lens Clear silicone

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temp.
Power Dissipation	PD	8.0	W	Ta=25°C
Forward Current	IF	1000	mA	Ta=25°C
Pulse Forward Current	IFP	5	A	Ta=25°C
Reverse Voltage	VR	50	V	Ta=25°C
Operating Temperature	T _{OPR}	-30 ~ +80	°C	
Storage Temperature	T _{STG}	-30 ~ +110	°C	
Soldering Temperature	T _{SOL}	250	°C	

‡Pulse Forward Current condition: Duty=1% and Pulse Width=1us.

‡Soldering condition: Soldering condition must be completed within 3 seconds at 250°C

◆ Electro-Optical Characteristics

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Total Radiated Power	P _O	IF=600mA		650		mW
Total Radiated Power	P _O	IFP=3A		-		mW
Radiant Intensity	I _E	IF=600mA		-		mW/sr
Forward Voltage	V _F	IF=600mA		7.5		V
Reverse Current	V _R	IR=10uA	10			V
Peak Wavelength	λ _P	IF=600mA	840	850	860	nm
Half Width	Δλ	IF=600mA		20		nm
Viewing Half Angle	θ _{1/2}	IF=600mA		±70		deg.
Rise Time	t _f	IF=100mA		25		ns
Fall Time	t _f	IF=100mA		15		ns

‡Total Radiated Power is measured by S3584-08

‡LED is required to keep less than 60°C.

Marubeni America Corporation

3945 Freedom Circle, Suite 1000, Santa Clara, CA 95054
408-330-0650 (Ext. 330), 408-330-0655 (FAX), sales@tech-led.com