

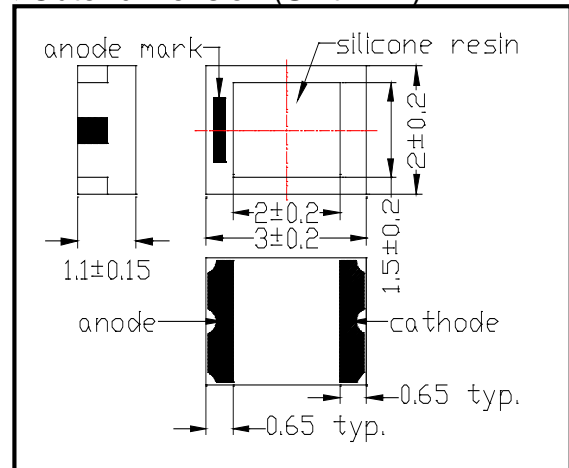
SMC735 High Performance infrared SMD LED on ceramics

SMC735 consists of an AlGaAs LED mounted on the ceramics package and is sealed with silicone or epoxy resin. It emits a spectral band of radiation at 735nm.

◆ Specifications

1) Product Name	SMD type infrared LED
2) Type No.	SMC735
3) Chip	
(1) Chip Material	AlGaAs
(2) Peak Wavelength	735nm typ.
4) Package	
(1) Lead Frame Die	Ceramics
(2) Lens	Silicone or Epoxy resin

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	170	mW
Forward Current	IF	75	mA
Pulse Forward Current	IFP	500	mA
Reverse Voltage	VR	5	V
Thermal Resistance	Rthja	70	K/W
Junction Temperature	Tj	120	°C
Operating Temperature	TOPR	-40 ~ +100	°C
Storage Temperature	TSTG	-40 ~ +100	°C
Soldering Temperature	TSOL	250	°C

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Soldering condition: Soldering condition must be completed within 5 seconds at 250°C

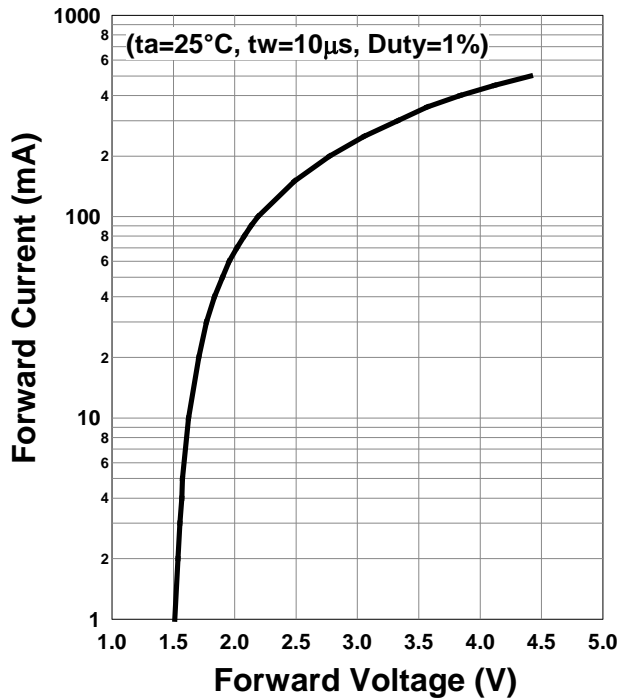
◆ Electro-Optical Characteristics [Ta=25°C typ.]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.9	2.2	V
	VFP	IFP=500mA		4.4		
Radiated Power	PO	IF=50mA		16		mW
		IFP=500mA		160		
Radiant Intensity	IE	IF=50mA		7		mW/sr
		IFP=500mA		70		
Peak Wavelength	λ_P	IF=50mA	725	735	745	nm
Half Width	$\Delta\lambda$	IF=50mA		25		nm
Viewing Half Angle	$\theta_{1/2}$	IF=50mA		±63		deg.
Rise Time	tr	IF=50mA		40		ns
Fall Time	tf	IF=50mA		40		ns

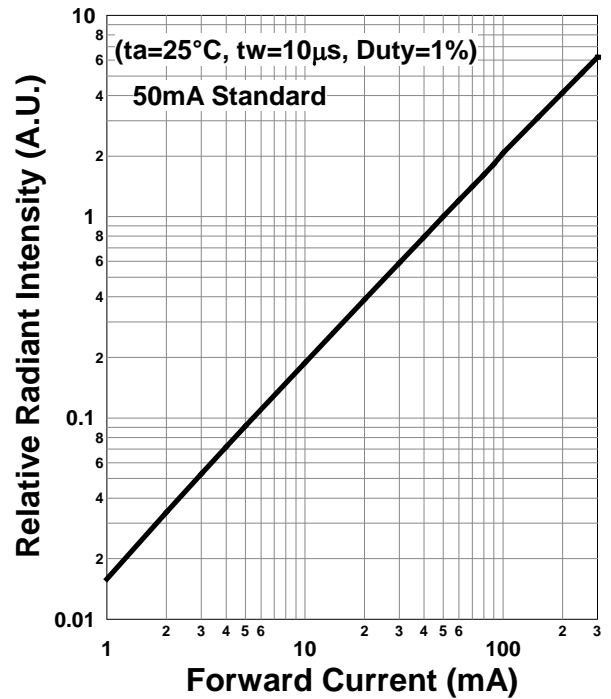
‡Radiated Power is measured by S3584-08.

‡Radiant Intensity is measured by CIE127-2007 Condition B.

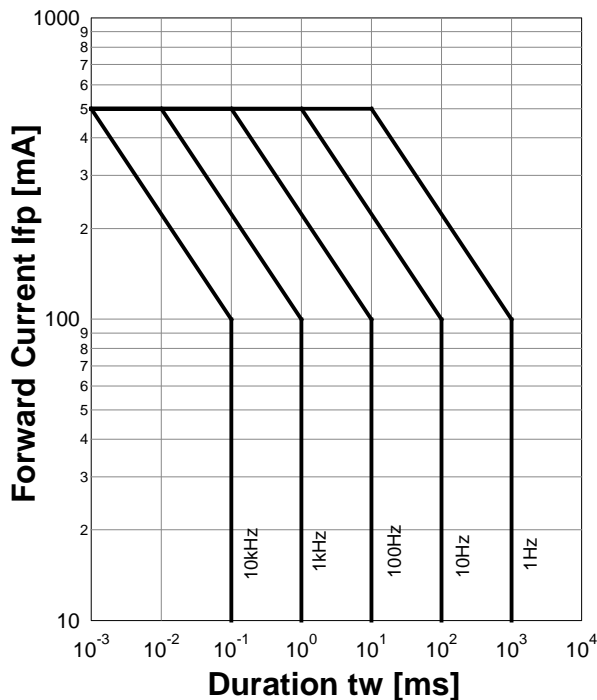
Forward Current - Forward Voltage



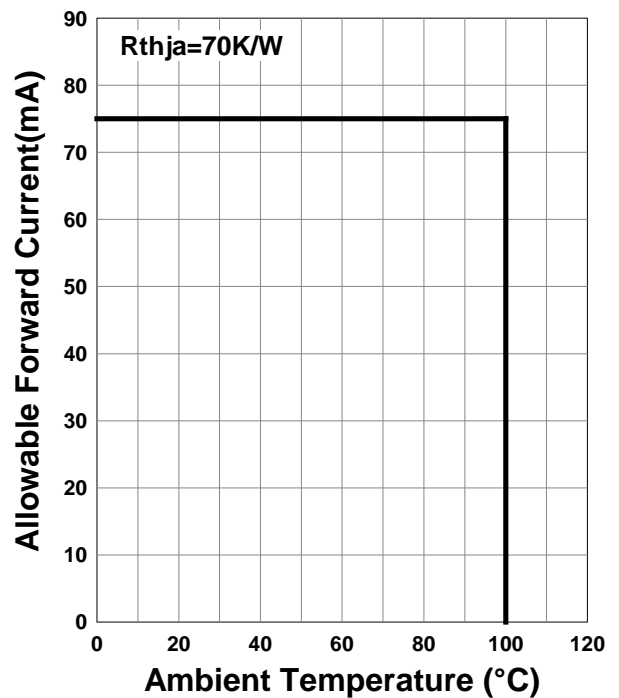
Relative Radiant Intensity - Forward Current



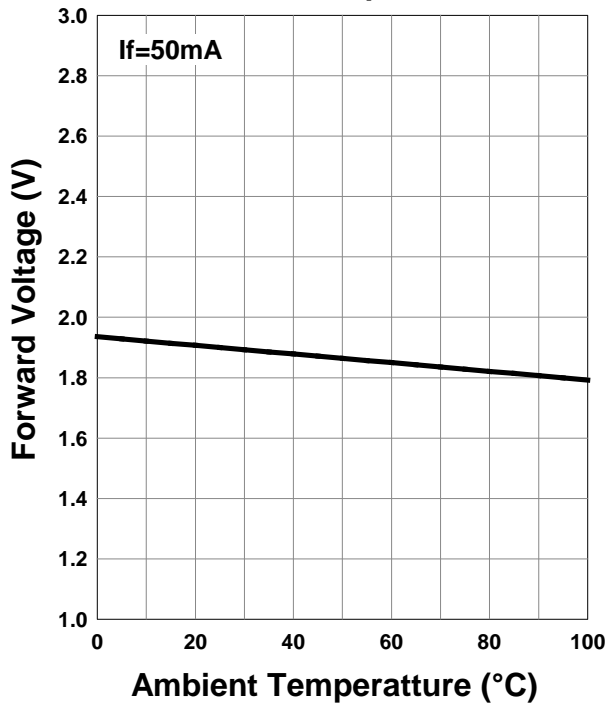
Forward Current - Pulse Duration



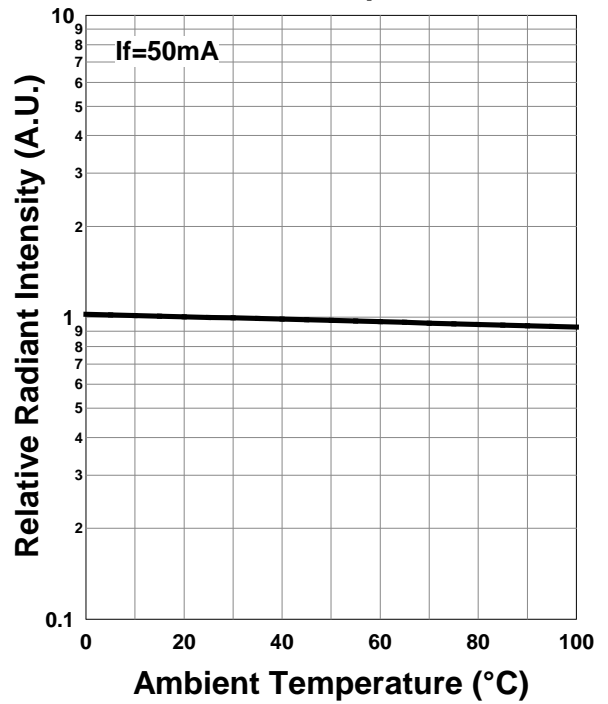
Allowable Forward Current - Ambient Temperature



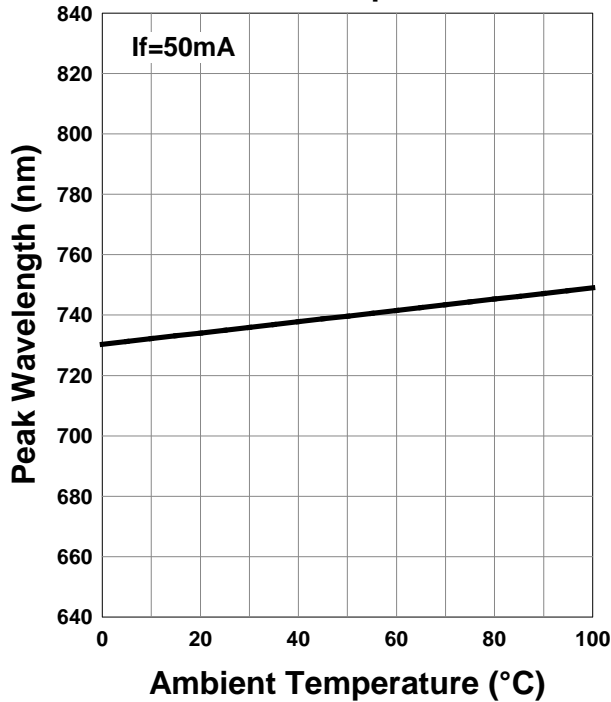
Forward Voltage - Ambient Temperature



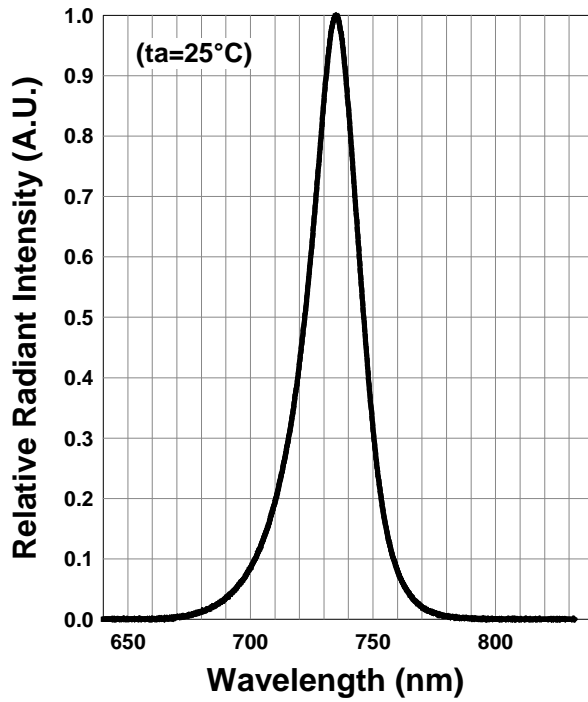
Relative Radiant Intensity - Ambient Temperature



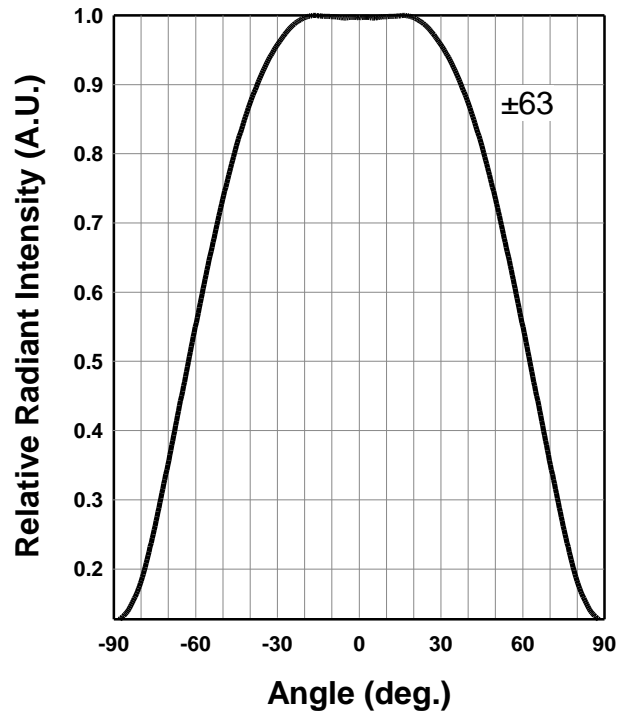
Peak Wavelength - Ambient Temperature



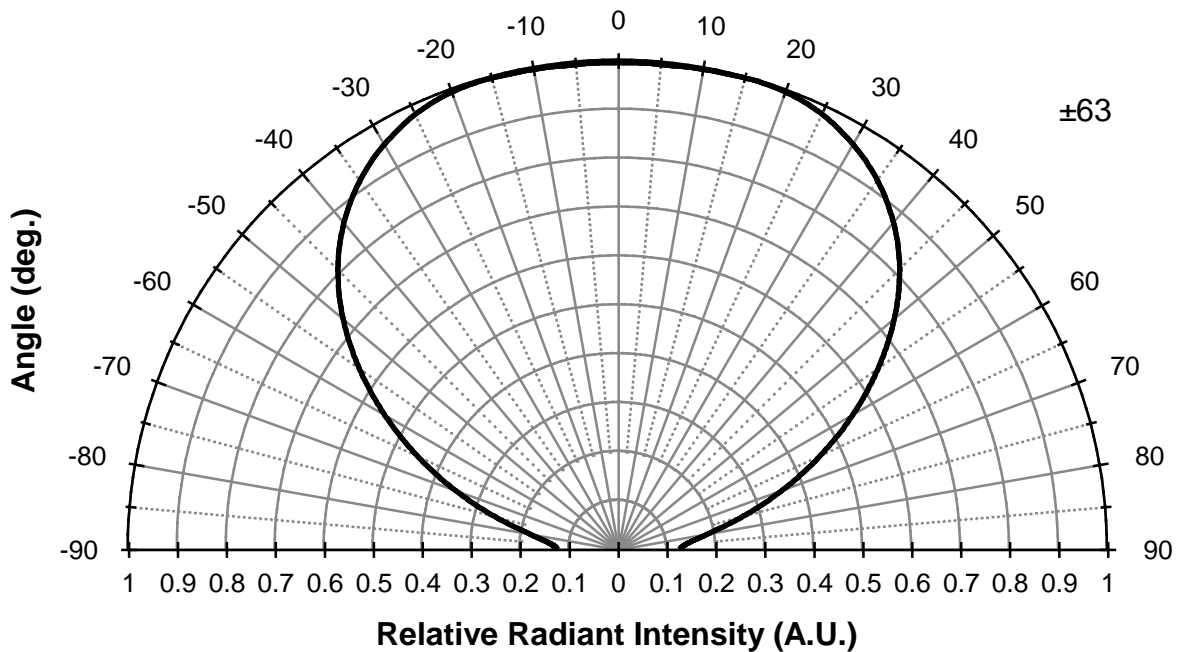
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



Disclaimer

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Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements. Product data and parameters may vary by user application and over time.

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