

**IEFC0128**

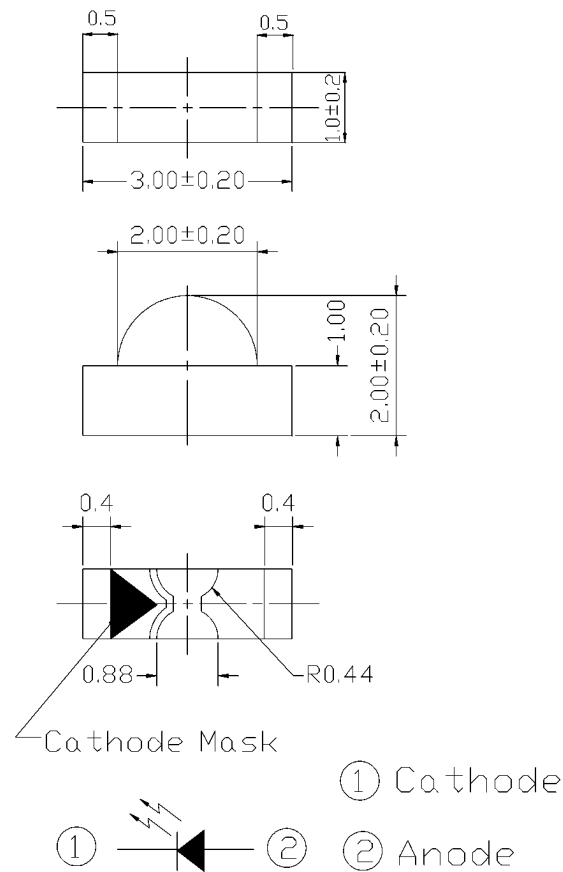
Page 1 of 2



This lamp is an infrared emitting diode in miniature SMD package. It is molded in a water clear plastic with a right-angle lens.



RoHS Compliant  
Aug 2004



PART NO.	Chip		Lens Color
	Material	Emitted Color	
IEFC0128	GaAlAs	IR	Water Clear

\* Specifications subject to change without notice. Dimensions are in mm±0.1 unless stated otherwise.

**Absolute Maximum Ratings at  $T_a = 25^\circ\text{C}$** 

Parameter	Symbol	Rating	Units
Continuous Forward Current	$I_F$	65	mA
Operating Temperature	$T_{opr}$	-25 to +85	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 to +85	$^\circ\text{C}$
Soldering Temperature	$T_{sol}$	260	$^\circ\text{C}$
Power Dissipation at (or below) $25^\circ\text{C}$ Free Air Temperature	$P_d$	130	mW
Peak Forward Current (Pulse Width = $100\mu\text{s}$ and Duty = 1%)	$I_{FP}$	1.0	A
Reverse Voltage	$V_R$	5	V

**Electronic Optical Characteristics**

Parameter	Symbol	Min.	Typ.	Max	Units	Condition
Radiant Intensity	$E_e$	0.7	1.3	—	mW/sr	$I_F = 20\text{ mA}$
		—	7.0	—		$I_F=100\text{mA}, t_p=100\mu\text{s}, t_p/T=0.01$
		—	65	—		$I_F=1\text{A}, t_p=100\mu\text{s}, t_p/T=0.01$
Peak Wavelength	$\lambda_p$	—	850	—	nm	$I_F = 20\text{ mA}$
Spectral Bandwidth	$\Delta\lambda$	—	45	—	nm	$I_F = 20\text{ mA}$
Forward Voltage	$V_F$	—	1.45	1.65	V	$I_F = 20\text{ mA}$
		—	1.80	2.40		$I_F=100\text{mA}, t_p=100\mu\text{s}, t_p/T=0.01$
		—	4.10	5.25		$I_F=1\text{A}, t_p=100\mu\text{s}, t_p/T=0.01$
Reverse Current	$I_R$	—	—	10	$\mu\text{A}$	$V_R = 5\text{ V}$
View Angle	$2\theta_{1/2}$	—	145	—	deg	$I_F = 20\text{ mA}$

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