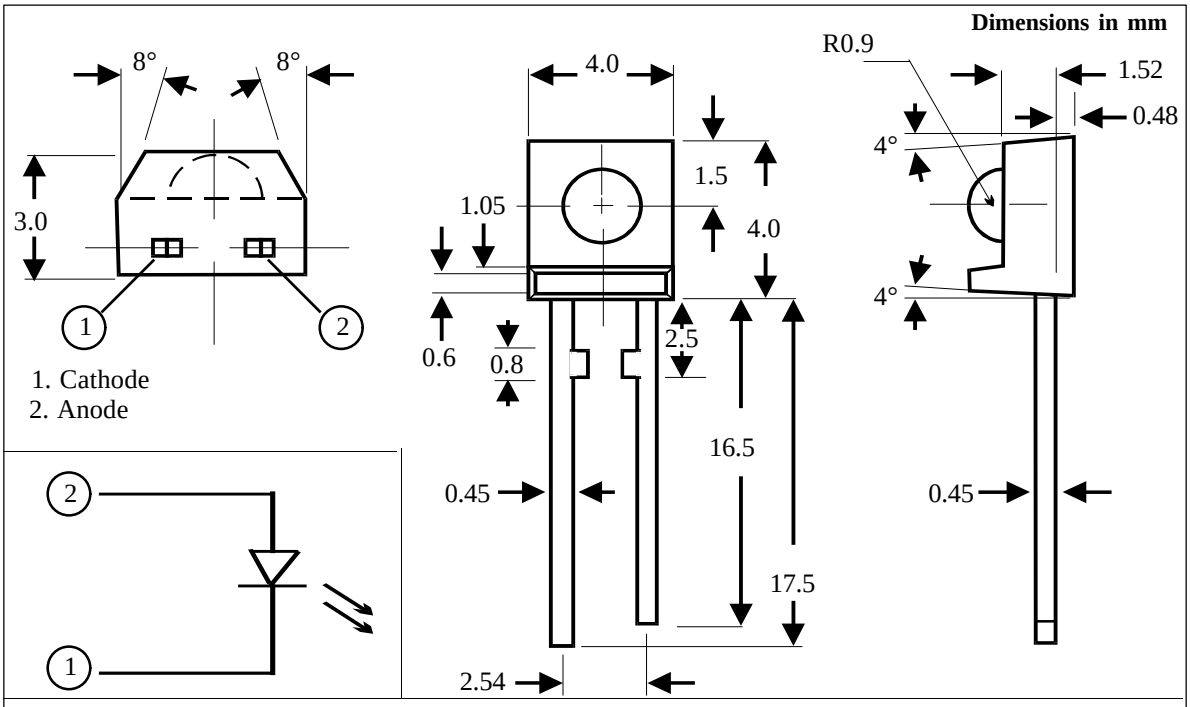
IS656A

NARROW BEAM ANGLE SIDE LOOKING INFRARED EMITTING DIODE



DESCRIPTION

The IS656A is a Gallium Arsenide Infrared Emitting Diode mounted in a lateral side looking package. It can be used in conjunction with our series of Schmitt Trigger Detectors - IS657A, IS657B, IS657C, IS657D

FEATURES

- Side looking package.
- High output, Radiant Intensity :- I_E = 0.5mW min. at I_F = 20mA
- Narrow Beam Angle :- Typically ±13°
- All electrical parameters are 100% tested

APPLICATIONS

- Smoke detectors
- Floppy disk drives
- Infrared applied systems
- VCRs, Video camera
- Optoelectronic switches

ABSOLUTE MAXIMUM RATINGS (25°C unless otherwise specified)

Storage Temperature	-40°C to + 85°C
Operating Temperature	-25°C to + 85°C
Lead Soldering Temperature (1/16 inch (1.6mm) from case for 10 secs)	260°C
Forward Current	50mA
Peak Forward Current	1A (note 2)
Reverse Voltage	6V
Power Dissipation	75mW

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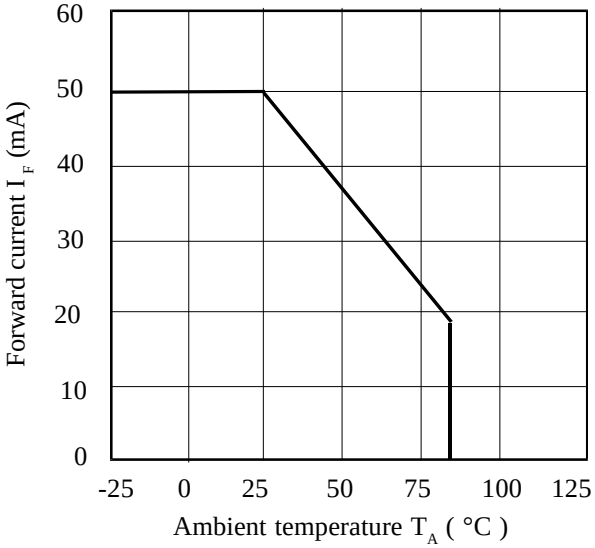
ELECTRICAL CHARACTERISTICS (T_A= 25°C Unless otherwise noted)

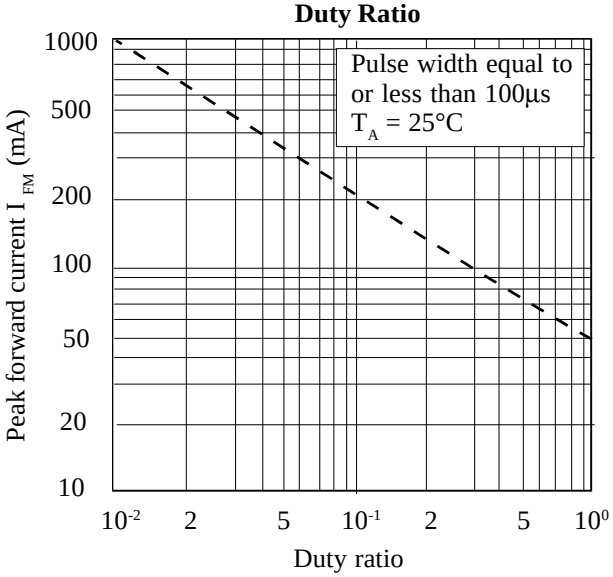
PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
	Forward Voltage (V_F)		1.2	1.4	V	I_F = 20mA
	Peak Forward Voltage (V_{FM})		3	4	V	I_{FM} = 0.5A (note 2)
	Reverse Current (I_R)			10	µA	V_R = 3V
	Radiant Flux (I_E)	0.5		2.0	mW	I_F = 20mA
	Peak Emission Wavelength		950		nm	I_F = 5mA
	Spectrum Radiation Bandwidth		45		nm	I_F = 5mA
	Beam Emission Angle		±13		deg.	

Note 1 Special Selections are available on request. Please consult the factory.
Note 2 Pulse width equal to or less than 100µs, duty ratio = 0.01

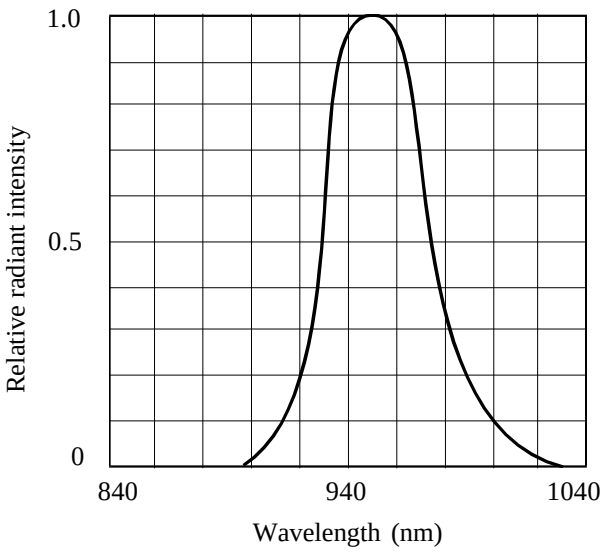
Forward Current vs. Ambient Temperature



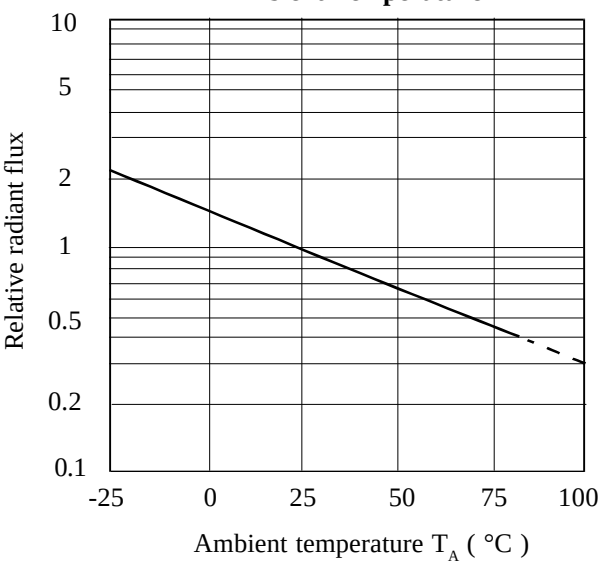
Peak Forward Current vs. Duty Ratio



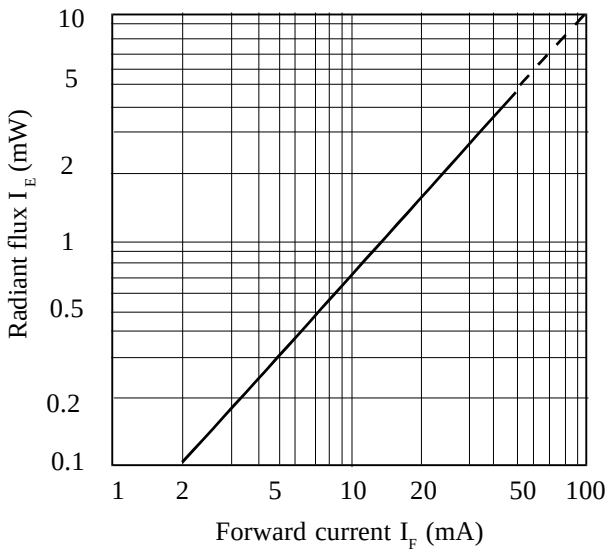
Spectral Distribution



Relative Radiant Flux vs. Ambient Temperature



Radiant Flux vs. Forward Current



Relative Radiant Flux vs. Distance