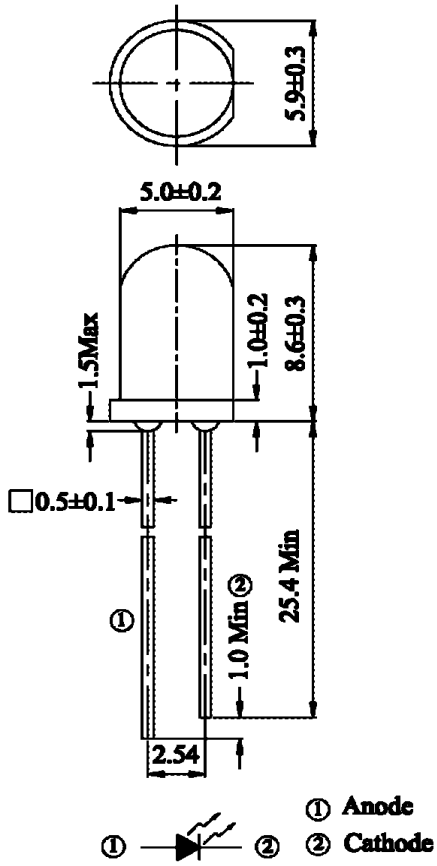
5mm Infrared Emitter

MTE333CA



Features

High Reliability
High Radiant Intensity
2.54 Lead Spacing
Low Foward Voltage

Applications

Free Air Transmission System
Infrared Remote Control with High Power Requirement
Smoke Detector
Infrared Applied System

Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Max.	Test Condition	Unit
Forward Current	I_F	100	–	mA
Pulsed Forward Current	I_{FP}	1.00	PW=100μ A, Duty=1%	A
Reverse Voltage	V_R	5	–	V
Power Dissipation	P_D	150.00	–	mW
Operating Temperature	T_{opr}	−40 ~ +85	–	°C
Storage Temperature	T_{stg}	−40 ~ +85	–	°C
Soldering Temperature	T_{sol}	260	for 5 sec. max	°C

Opto−Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F=20mA	–	1.20	1.50	V
Reverse Current	I_R	V_R=5V	–	–	10	μA
Power Output	PO	I_F=20mA	–	1.90	–	mW
Half Intensity Beam Angle	θ	–	–	± 20°	–	deg.
Peak Wavelength	λp	I_F=20mA	–	940	–	nm
Spectral Line Half Width	Δλ	I_F=20mA	–	45	–	nm

Company Headquarters
3 Northay Lane North
Latham, New York 12110
Toll Free: 800.984.5337
Fax: 518.785.4725

Web: www.marktechopto.com | Email: info@marktechopto.com

West Coast Sales Office
950 South Coast Drive, Suite 265
Costa Mesa, California 92626
Toll Free: 800.984.5337
Fax: 714.850.9314

MTE333CA Graphs

Typical Electro-Optical Characteristics Curves

Fig.1 Forward Current vs. Ambient Temperature

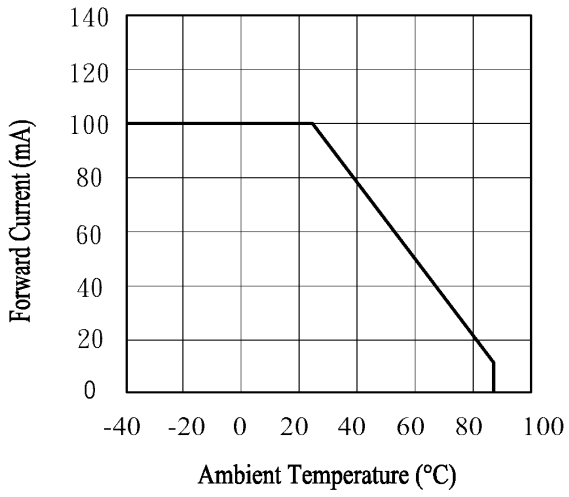


Fig.2 Spectral Distribution

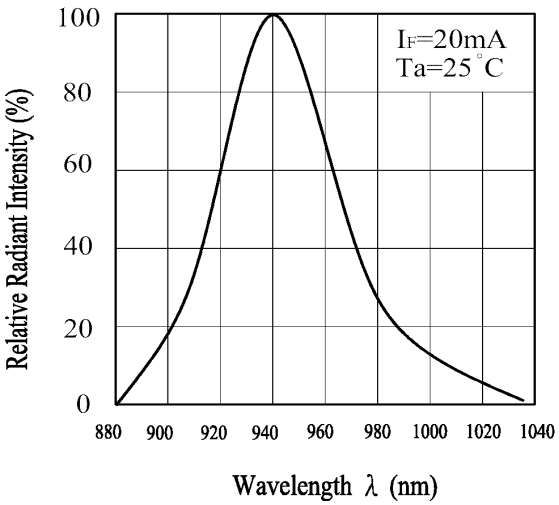


Fig.3 Peak Emission Wavelength Ambient Temperature

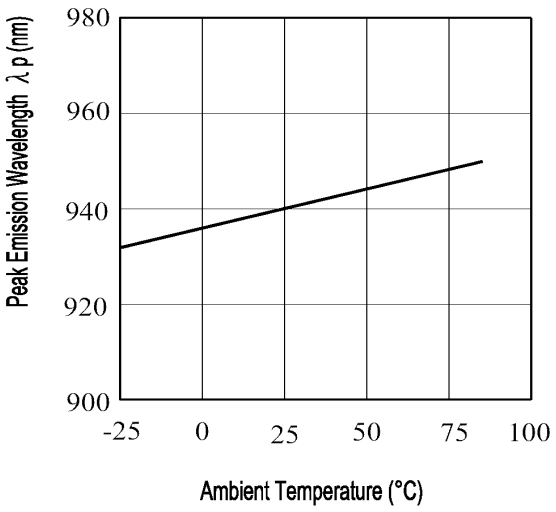
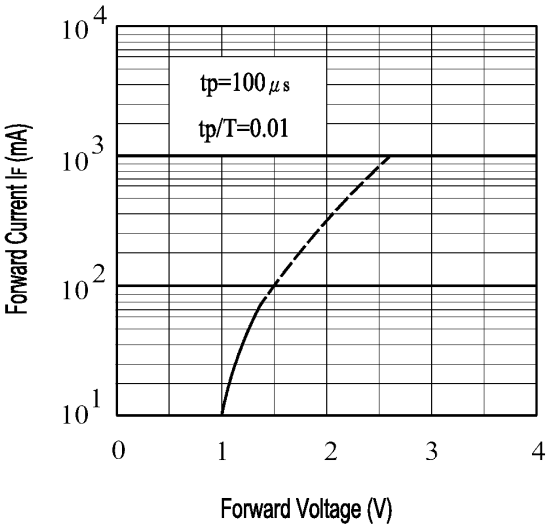


Fig.4 Forward Current vs. Forward Voltage



Company Headquarters
3 Northway Lane North
Latham, New York 12110
Toll Free: 800.984.5337
Fax: 518.785.4725

marktech optoelectronics
Web: www.marktechopto.com | Email: info@marktechopto.com

West Coast Sales Office
950 South Coast Drive, Suite 265
Costa Mesa, California 92626
Toll Free: 800.984.5337
Fax: 714.850.9314

MTE333CA Graphs

Typical Electro-Optical Characteristics Curves

Fig.5 Relative Intensity vs. Forward Current

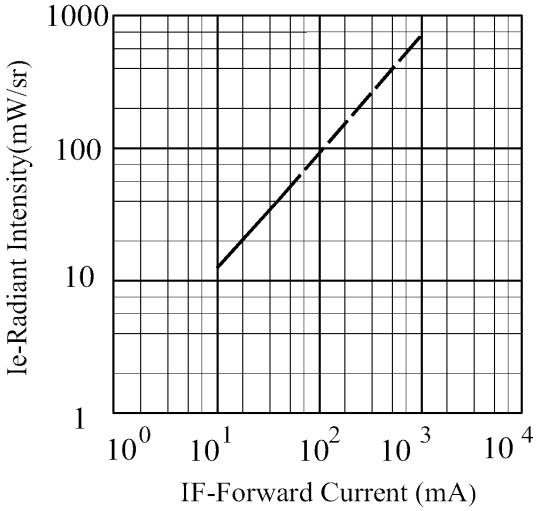


Fig.6 Relative Radiant Intensity vs. Angular Displacement

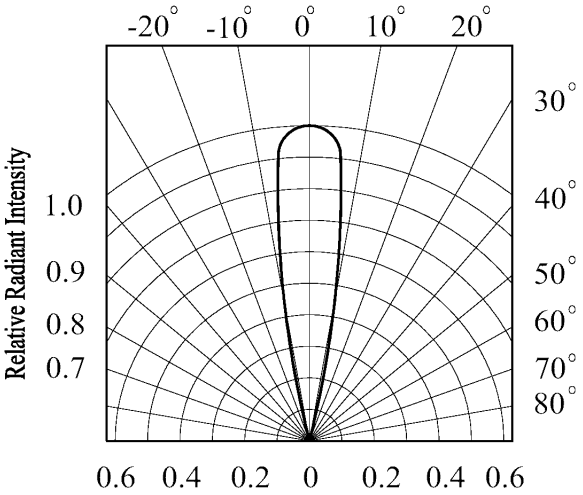


Fig.7 Relative Intensity vs. Ambient Temperature(° C)

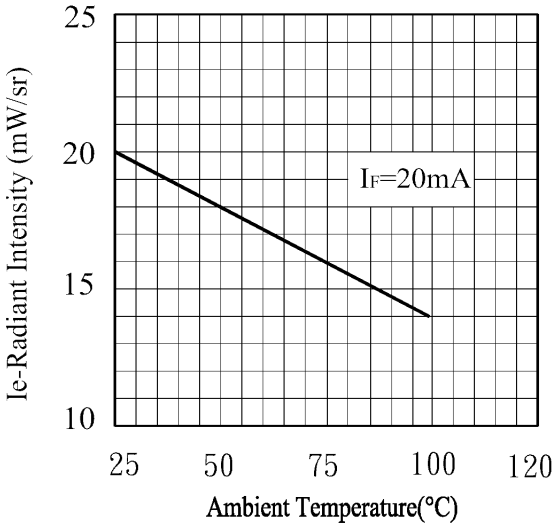
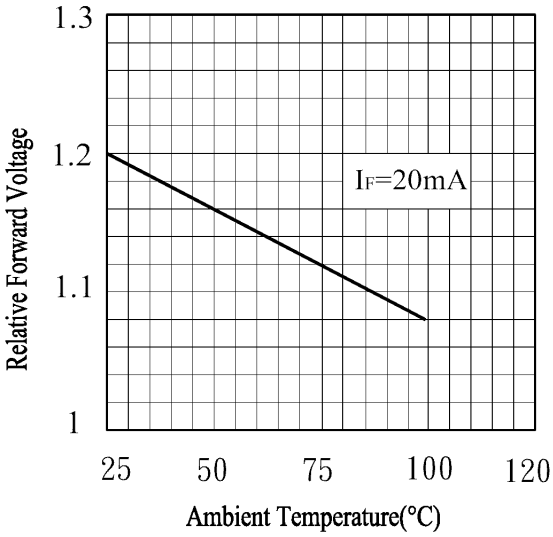


Fig.8 Forward Current vs. Ambient Temperature(° C)



Company Headquarters
3 Northway Lane North
Latham, New York 12110
Toll Free: 800.984.5337
Fax: 518.785.4725

marktech optoelectronics
Web: www.marktechopto.com | Email: info@marktechopto.com

West Coast Sales Office
100 Oceangate Blvd. #1200
Long Beach, CA 90802
Toll Free: 800.984.5337
Fax: 562.628.5572