

MTE333CA

Features

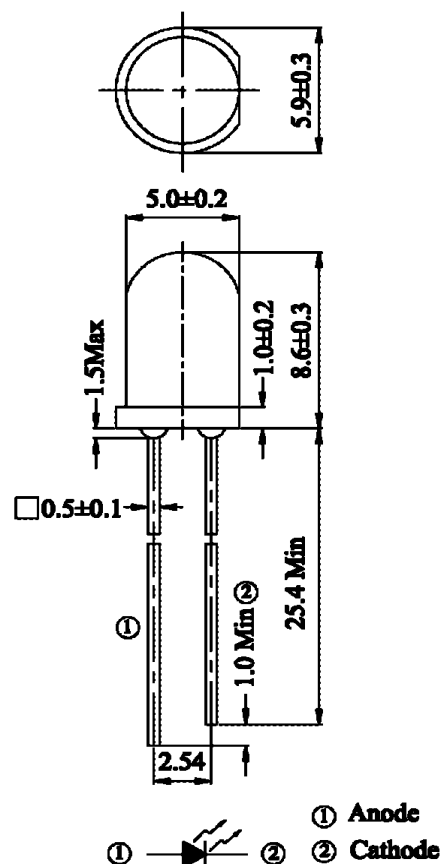
High Reliability
High Radiant Intensity
2.54 Lead Spacing
Low Forward Voltage

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=100μA, 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	$I_F=20\text{mA}$	–	1.20	1.50	V
Reverse Current	I_R	$V_R=5\text{V}$	–	–	10	μA
Power Output	PO	$I_F=20\text{mA}$	–	1.90	–	mW
Half Intensity Beam Angle	θ	–	–	$\pm 20^\circ$	–	deg.
Peak Wavelength	λ_p	$I_F=20\text{mA}$	–	940	–	nm
Spectral Line Half Width	$\Delta\lambda$	$I_F=20\text{mA}$	–	45	–	nm

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MTE333CA Graphs

Typical Electro-Optical Characteristics Curves

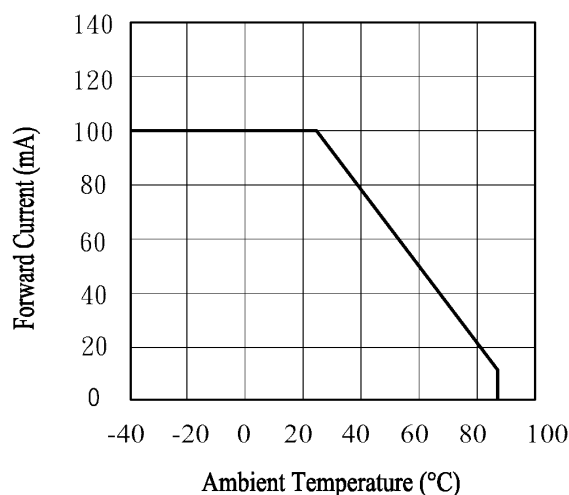
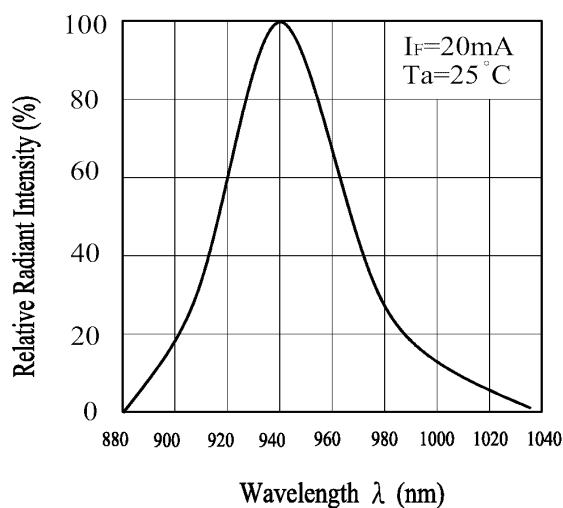
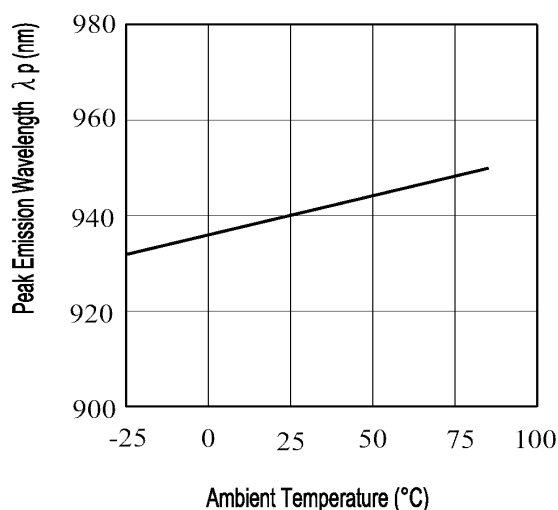
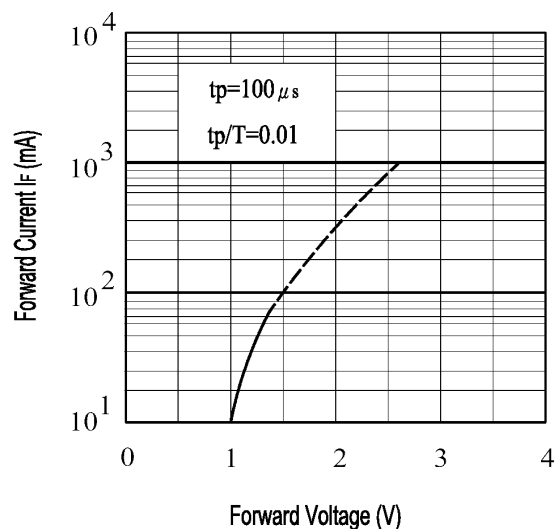
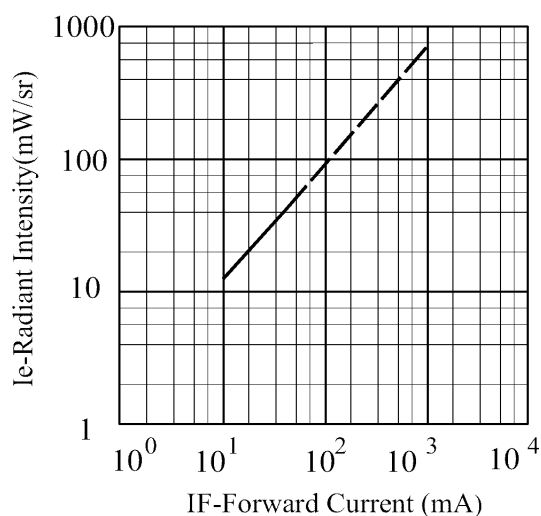
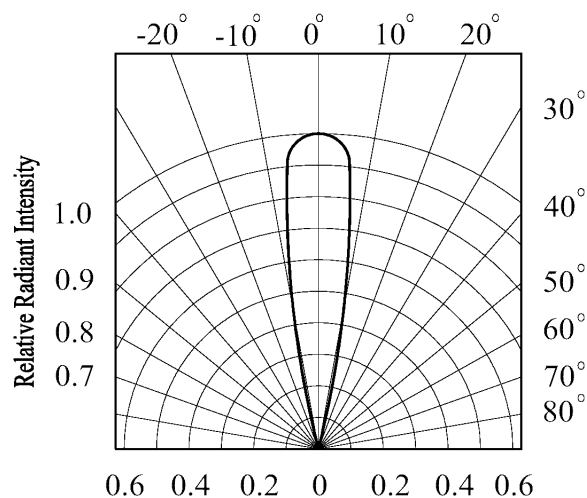
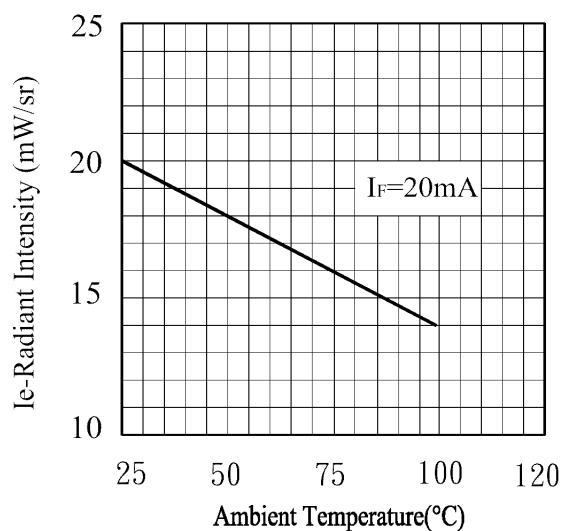
Fig.1 Forward Current vs.
Ambient Temperature

Fig.2 Spectral Distribution

Fig.3 Peak Emission Wavelength
Ambient TemperatureFig.4 Forward Current
vs. Forward Voltage

MTE333CA Graphs

Typical Electro-Optical Characteristics Curves

Fig.5 Relative Intensity vs.
Forward CurrentFig.6 Relative Radiant Intensity vs.
Angular DisplacementFig.7 Relative Intensity vs.
Ambient Temperature(° C)Fig.8 Forward Current vs.
Ambient Temperature(° C)