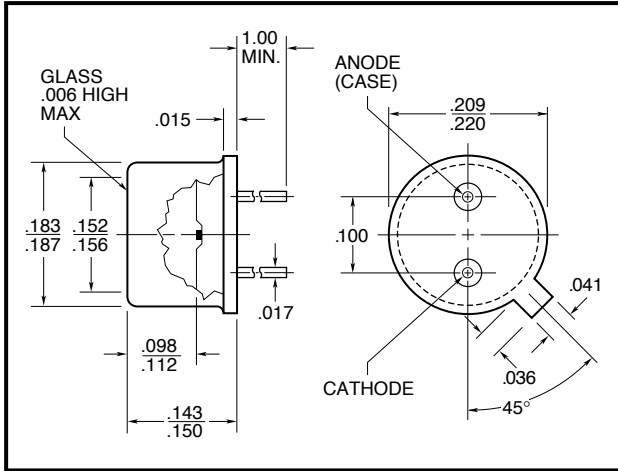


HIGH-SPEED GaAlAs IR EMITTERS

OD-870W



FEATURES

- High reliability LPE grown GaAlAs
- High power output
- Fast response
- Wide range of linear power output
- Custom packages available
- Custom spectral emissions available from 780nm -870nm

All surfaces are gold plated. Dimensions are nominal values in inches unless otherwise specified. Window caps are welded to the case.

ELECTRO-OPTICAL CHARACTERISTICS AT 25°C

PARAMETERS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Total Power Output, P_o	$I_F = 100\text{mA}$	4.5	5.5		mW
Peak Emission Wavelength, λ_p	$I_F = 50\text{mA}$		870		nm
Spectral Bandwidth at 50%, $\Delta\lambda$			50		nm
Half Intensity Beam Angle, θ				80	
Forward Voltage, V_F	$I_F = 100\text{mA}$		1.5	1.8	Volts
Reverse Breakdown Voltage, V_R	$I_R = 10\mu\text{A}$	2	5		Volts
Capacitance, C	$V_R = 0\text{V}$		150		pF
Rise Time			15		nsec
Fall Time			15		nsec

ABSOLUTE MAXIMUM RATINGS AT 25°C CASE

Power Dissipation ¹	180mW
Continuous Forward Current	100mA
Peak Forward Current (10 μs , 200Hz) ²	3A
Reverse Voltage	2V
Lead Soldering Temperature (1/16" from case for 10sec)	240°C

¹Derate per Thermal Derating Curve above 25°C

²Derate linearly above 25°C

THERMAL PARAMETERS

Storage and Operating Temperature Range	-55°C TO 100°C
Maximum Junction Temperature	100°C
Thermal Resistance, R_{THJA} ¹	400°C/W Typical
Thermal Resistance, R_{THJA} ²	135°C/W Typical

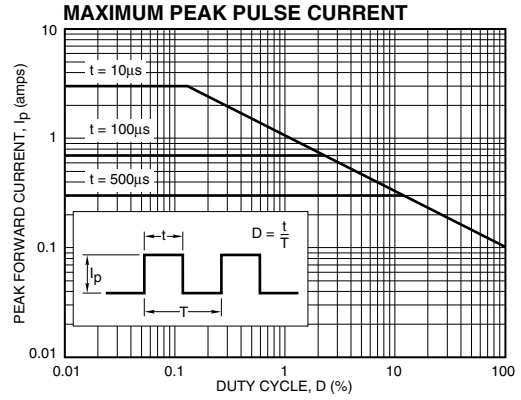
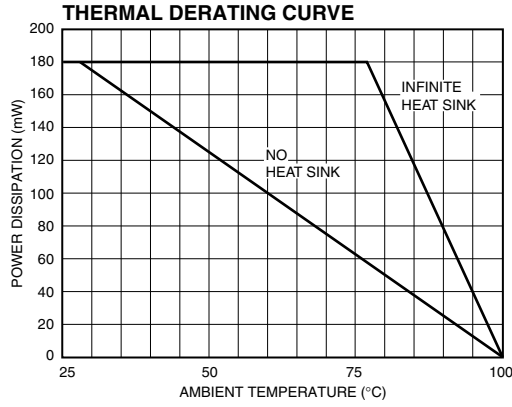
¹Heat transfer minimized by measuring in still air with minimum heat conducting through leads

²Air circulating at a rapid rate to keep case temperature at 25°C

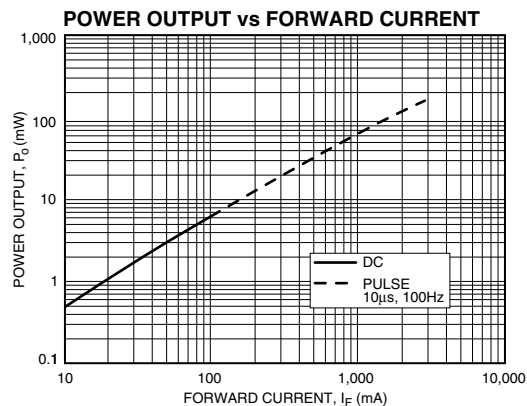
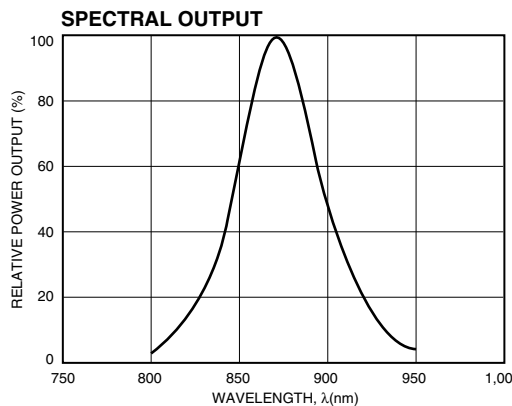
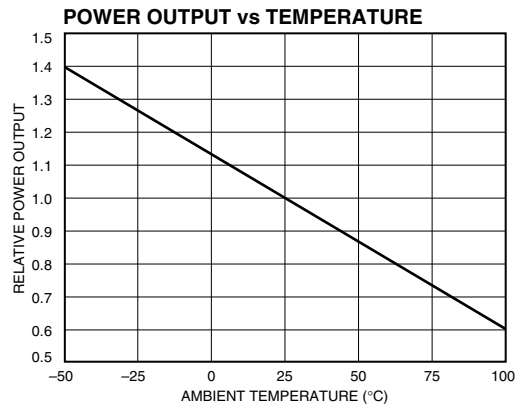
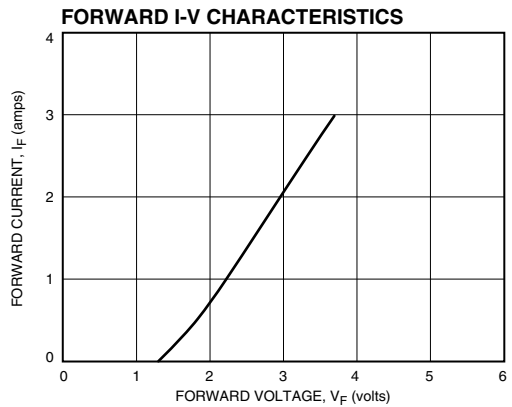
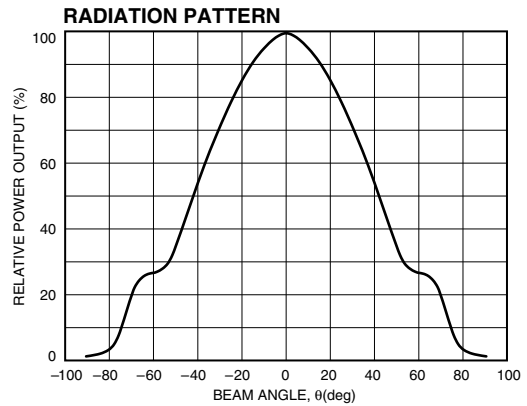
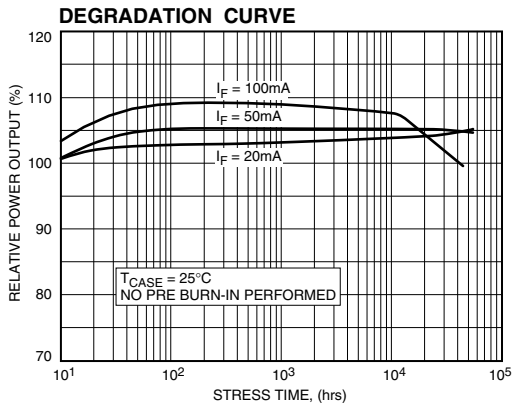
HIGH-SPEED GaAlAs IR EMITTERS

OD-870W

MAXIMUM RATINGS

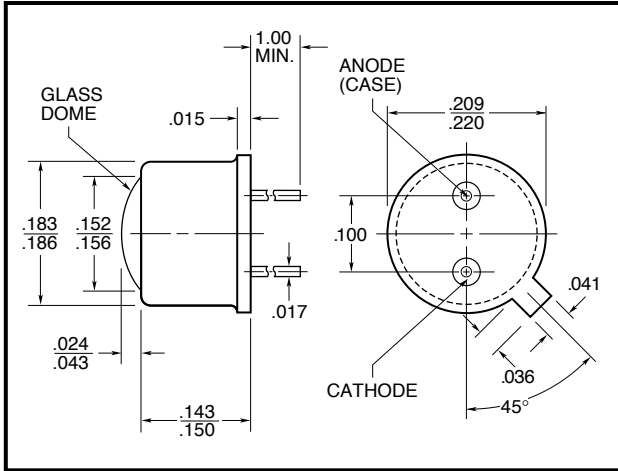


TYPICAL CHARACTERISTICS



HIGH-SPEED GaAIAs IR EMITTERS

OD-870L



FEATURES

- High reliability LPE grown GaAlAs
- High power output
- Fast response
- Wide range of linear power output
- Custom packages available
- Custom spectral emission from 780-870nm available

All surfaces are gold plated. Dimensions are nominal values in inches unless otherwise specified. Window caps are welded to the case.

ELECTRO-OPTICAL CHARACTERISTICS AT 25°C

PARAMETERS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Total Power Output, P_o	$I_F = 100\text{mA}$	4	5		mW
Peak Emission Wavelength, λ_p	$I_F = 50\text{mA}$		870		nm
Spectral Bandwidth at 50%, $\Delta\lambda$			50		nm
Half Intensity Beam Angle, θ				35	
Forward Voltage, V_F	$I_F = 100\text{mA}$		1.5	1.8	Volts
Reverse Breakdown Voltage, V_R	$I_R = 10\mu\text{A}$	2	5		Volts
Capacitance, C	$V_R = 0\text{V}$		150		pF
Rise Time			15		nsec
Fall Time			15		nsec

ABSOLUTE MAXIMUM RATINGS AT 25°C CASE

Power Dissipation ¹	180mW
Continuous Forward Current	100mA
Peak Forward Current (10 μs , 200Hz) ²	3A
Reverse Voltage	2V
Lead Soldering Temperature (1/16" from case for 10sec)	240°C

¹Derate per Thermal Derating Curve above 25°C

²Derate linearly above 25°C

THERMAL PARAMETERS

Storage and Operating Temperature Range	-55°C TO 100°C
Maximum Junction Temperature	100°C
Thermal Resistance, R_{THJA} ¹	400°C/W Typical
Thermal Resistance, R_{THJA} ²	135°C/W Typical

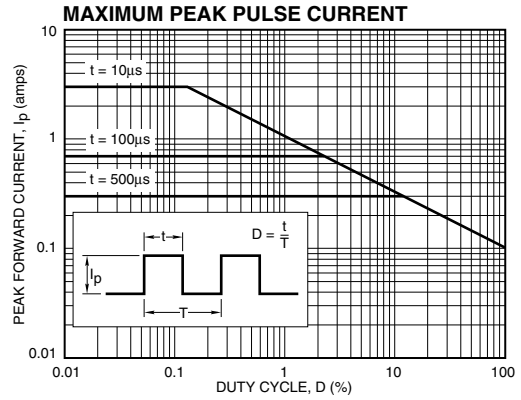
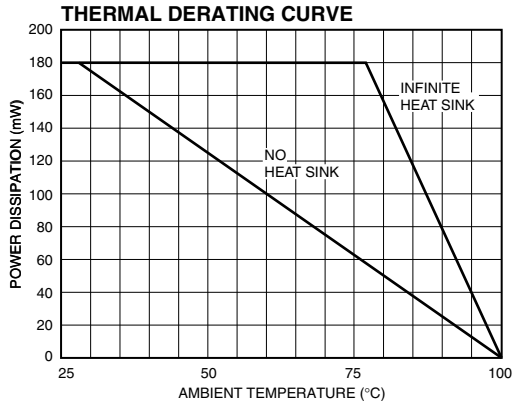
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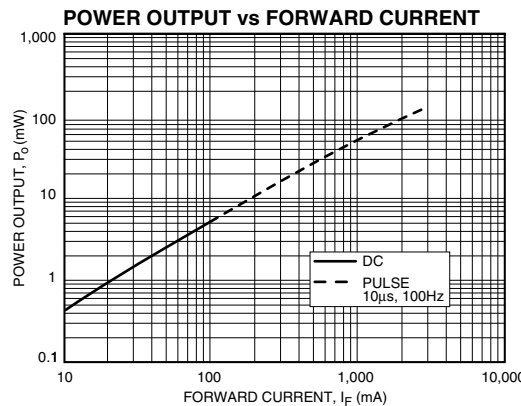
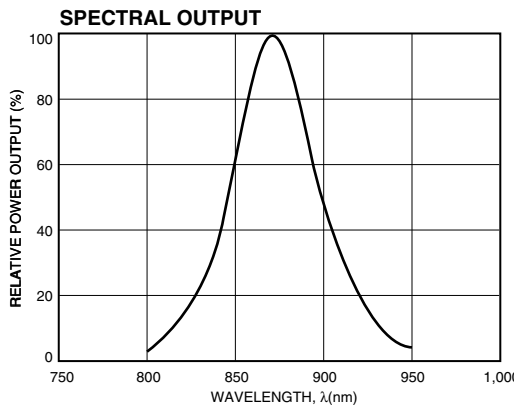
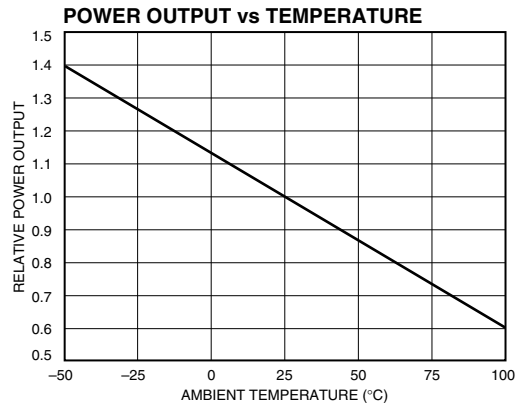
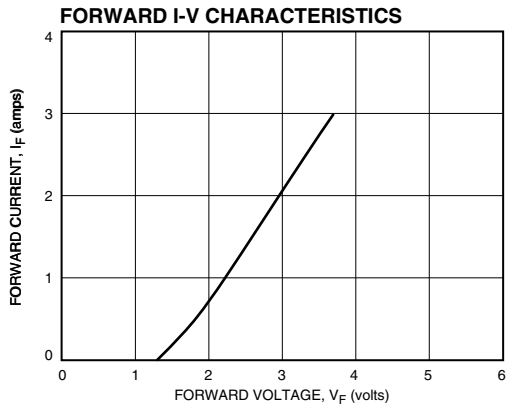
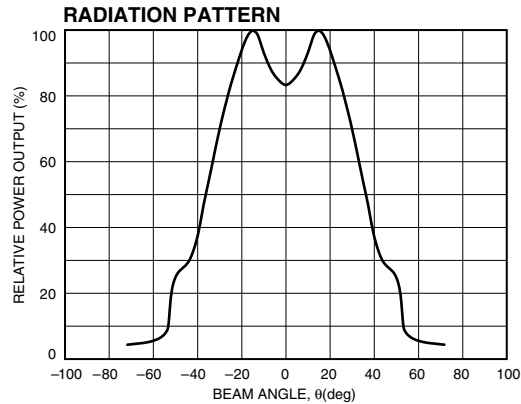
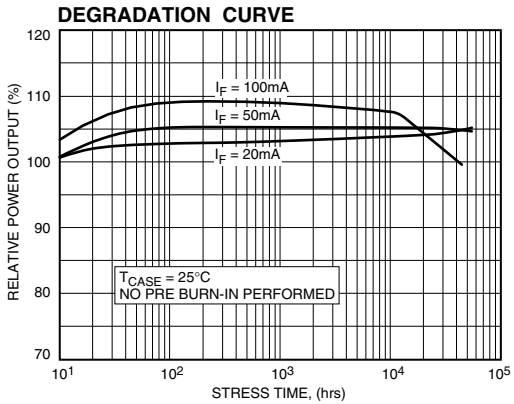
HIGH-SPEED GaAlAs IR EMITTERS

OD-870L

MAXIMUM RATINGS

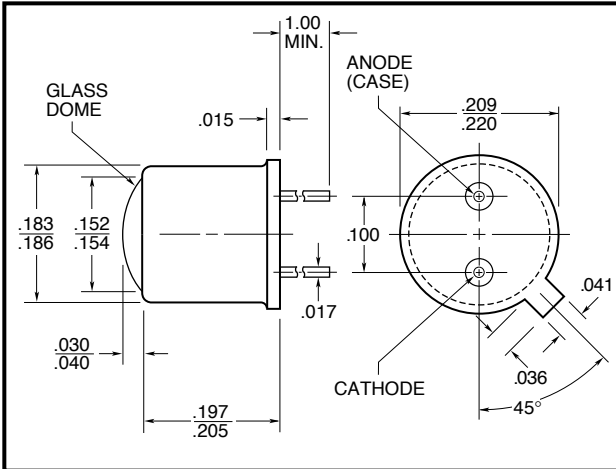


TYPICAL CHARACTERISTICS



HIGH-SPEED GaAIAs IR EMITTERS

OD-870F



FEATURES

- High reliability LPE grown GaAlAs
- High power output
- Fast response
- Wide range of linear power output
- Custom packages available
- Custom spectral emission from 780-870nm available

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ELECTRO-OPTICAL CHARACTERISTICS AT 25°C

PARAMETERS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Total Power Output, P_o	$I_F = 100\text{mA}$	3.5	4.5		mW
Peak Emission Wavelength, λ_p	$I_F = 50\text{mA}$		870		nm
Spectral Bandwidth at 50%, $\Delta\lambda$			50		nm
Half Intensity Beam Angle, θ				8	
Forward Voltage, V_F	$I_F = 100\text{mA}$		1.5	1.8	Volts
Reverse Breakdown Voltage, V_R	$I_R = 10\mu\text{A}$	2	5		Volts
Capacitance, C	$V_R = 0\text{V}$		150		pF
Rise Time			15		nsec
Fall Time			15		nsec

ABSOLUTE MAXIMUM RATINGS AT 25°C CASE

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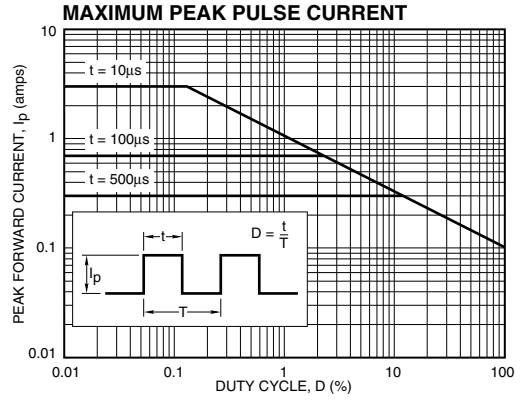
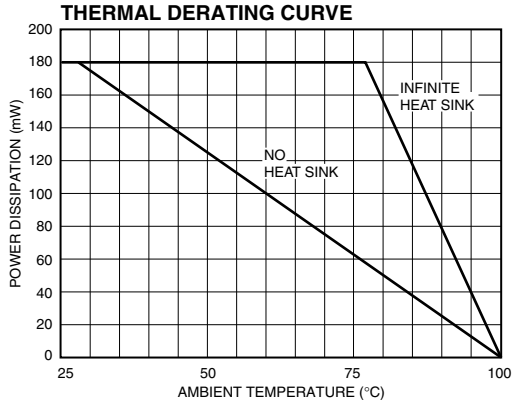
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HIGH-SPEED GaAlAs IR EMITTERS

OD-870F

MAXIMUM RATINGS



TYPICAL CHARACTERISTICS

