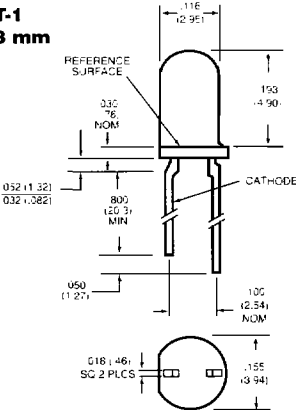
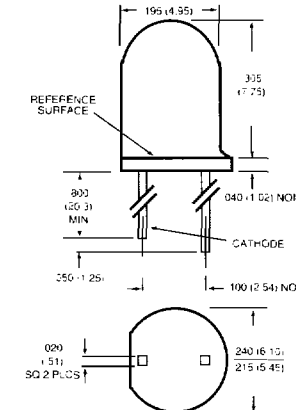
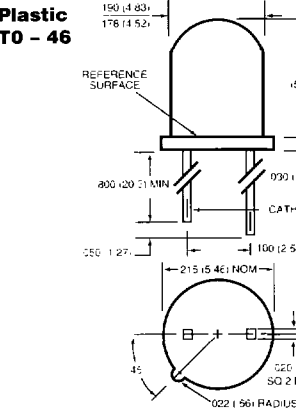


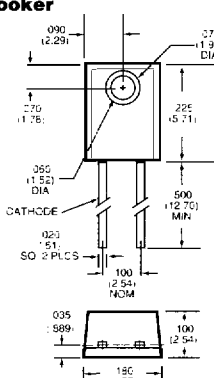
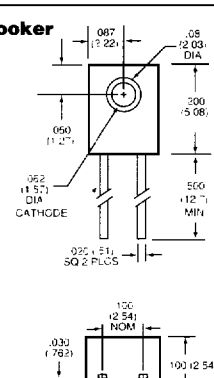
PLASTIC INFRARED LIGHT EMITTING DIODES

	Emission Angle @	I _e Radiant Intensity		V _F /I _F (V)/(mA)	I _R /V _R (μA)/(V)	Notes		
Part Number	1/2 Power	min	max	max	max			
T-1 3 mm 	940 nm GaAs							
	QEC112	±8°	6	30	mW/sr	1.50/20	10/5	1
	QEC113	±8°	14	—	mW/sr	1.50/20	10/5	1
	880 nm AlGaAs							
	QEC121	±8°	14	—	mW/sr	1.70/20	10/5	1
	QEC122	±8°	27	94	mW/sr	1.70/20	10/5	1
QEC123	±8°	39	—	mW/sr	1.70/20	10/5	1	
T-13/4 5 mm 	940 nm GaAs							
	QED233	±20°	10	53	mW/sr	1.50/20	10/5	1
	QED234	±20°	27	—	mW/sr	1.50/20	10/5	1
	880 nm AlGaAs							
	QED121	±9°	20	40	mW/sr	1.70/20	10/5	1
	QED122	±9°	50	100	mW/sr	1.70/20	10/5	1
	QED123	±9°	80	—	mW/sr	1.70/20	10/5	1
	QED221	±20°	10	20	mW/sr	1.70/20	10/5	1
	QED222	±20°	16	32	mW/sr	1.70/20	10/5	1
QED223	±20°	25	—	mW/sr	1.70/20	10/5	1	
Plastic T0 - 46 	880 nm AlGaAs							
	QED422	±30°	10	50	mW/sr	1.70/20	10/5	1
	QED423	±30°	18	—	mW/sr	1.70/20	10/5	1
	QED522	±15°	20	94	mW/sr	1.70/20	10/5	1
	QED523	±15°	40	—	mW/sr	1.70/20	10/5	1

Dimensions for all drawings are in inches (millimeters).

Tolerance of ±.010 (.25) unless otherwise stated on all non nominal dimensions.

PLASTIC INFRARED LIGHT EMITTING DIODES

Part Number	Emission Angle @ 1/2 Power	I _e Radiant Intensity		V _F /I _F (V)/(mA) max	I _R /V _R (μA)/(V) max	Notes																																																	
		min	max units																																																				
<div style="display: flex; justify-content: space-between;"> <div style="width: 25%;">  </div> <div style="width: 70%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: black; color: white;"> <th>Part Number</th> <th>Emission Angle @ 1/2 Power</th> <th colspan="2">I_e Radiant Intensity</th> <th>V_F/I_F (V)/(mA) max</th> <th>I_R/V_R (μA)/(V) max</th> <th>Notes</th> </tr> <tr style="background-color: black; color: white;"> <th colspan="2"></th> <th>min</th> <th>max units</th> <th colspan="3"></th> </tr> </thead> <tbody> <tr> <td colspan="7">940 nm GaAs</td> </tr> <tr> <td>F5F1</td> <td>±35°</td> <td>.28</td> <td>—</td> <td>mW/sr</td> <td>1.70/60</td> <td>10/6 2</td> </tr> <tr> <td colspan="7">880 nm AlGaAs</td> </tr> <tr> <td>F5G1</td> <td>±35°</td> <td>.60</td> <td>—</td> <td>mW/sr</td> <td>1.70/50</td> <td>10/6 2</td> </tr> </tbody> </table> </div> </div>							Part Number	Emission Angle @ 1/2 Power	I _e Radiant Intensity		V _F /I _F (V)/(mA) max	I _R /V _R (μA)/(V) max	Notes			min	max units				940 nm GaAs							F5F1	±35°	.28	—	mW/sr	1.70/60	10/6 2	880 nm AlGaAs							F5G1	±35°	.60	—	mW/sr	1.70/50	10/6 2							
Part Number	Emission Angle @ 1/2 Power	I _e Radiant Intensity		V _F /I _F (V)/(mA) max	I _R /V _R (μA)/(V) max	Notes																																																	
		min	max units																																																				
940 nm GaAs																																																							
F5F1	±35°	.28	—	mW/sr	1.70/60	10/6 2																																																	
880 nm AlGaAs																																																							
F5G1	±35°	.60	—	mW/sr	1.70/50	10/6 2																																																	
<div style="display: flex; justify-content: space-between;"> <div style="width: 25%;">  </div> <div style="width: 70%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: black; color: white;"> <th>Part Number</th> <th>Emission Angle @ 1/2 Power</th> <th colspan="2">I_e Radiant Intensity</th> <th>V_F/I_F (V)/(mA) max</th> <th>I_R/V_R (μA)/(V) max</th> <th>Notes</th> </tr> <tr style="background-color: black; color: white;"> <th colspan="2"></th> <th>min</th> <th>max units</th> <th colspan="3"></th> </tr> </thead> <tbody> <tr> <td colspan="7">940 nm GaAs</td> </tr> <tr> <td>QEE113</td> <td>±25°</td> <td>3</td> <td>12</td> <td>mW/sr</td> <td>1.50/20</td> <td>10/5 1</td> </tr> <tr> <td colspan="7">880 nm AlGaAs</td> </tr> <tr> <td>QEE122</td> <td>±25°</td> <td>4</td> <td>16</td> <td>mW/sr</td> <td>1.70/20</td> <td>10/5 1</td> </tr> <tr> <td>QEE123</td> <td>±25°</td> <td>8</td> <td>—</td> <td>mW/sr</td> <td>1.70/20</td> <td>10/5 1</td> </tr> </tbody> </table> </div> </div>							Part Number	Emission Angle @ 1/2 Power	I _e Radiant Intensity		V _F /I _F (V)/(mA) max	I _R /V _R (μA)/(V) max	Notes			min	max units				940 nm GaAs							QEE113	±25°	3	12	mW/sr	1.50/20	10/5 1	880 nm AlGaAs							QEE122	±25°	4	16	mW/sr	1.70/20	10/5 1	QEE123	±25°	8	—	mW/sr	1.70/20	10/5 1
Part Number	Emission Angle @ 1/2 Power	I _e Radiant Intensity		V _F /I _F (V)/(mA) max	I _R /V _R (μA)/(V) max	Notes																																																	
		min	max units																																																				
940 nm GaAs																																																							
QEE113	±25°	3	12	mW/sr	1.50/20	10/5 1																																																	
880 nm AlGaAs																																																							
QEE122	±25°	4	16	mW/sr	1.70/20	10/5 1																																																	
QEE123	±25°	8	—	mW/sr	1.70/20	10/5 1																																																	

Notes (Applies to all components on pages 91 and 92.)

1. I_e @ I_F = 100 mA pulsed
2. I_e @ I_F = 20 mA pulsed

Maximum Ratings Table A (Applies to all components on pages 91 and 92.)

Storage Temperature	-40 to +100° C
Operating Temperature	-40 to +100° C
Soldering:	
Lead Temperature (Iron)	240° C for 5 s
Lead Temperature (Flow)	260° C for 10 s
Reverse Voltage (QEC, QED, QEE)	5.0 V
Reverse Voltage (F5F, F5G)	6.0 V
Continuous Forward Current (QEC, QEE, F5G)	50 mA
Continuous Forward Current (F5F)	60 mA
Continuous Forward Current (QED)	100 mA
Power Dissipation (QEC, QEE, F5F, F5G)	100 mW
Derate linearly at 1.33 mW/°C above 25° C	
Power Dissipation (QED)	200 mW
Derate linearly at 2.67 mW/°C above 25° C	