

# Discrete LED Indicators

ECG Type	Description/Application	Viewed Color	Forward Voltage V <sub>F</sub> (V)	Reverse Voltage V <sub>R</sub> (V)	Max DC Forward Current I <sub>F</sub> (mA)	Maximum Power Diss. P <sub>D</sub> (mW)	Typical Viewing Angle Degrees	Typical Luminous Intensity MCD	Qty Per Pkg	Fig. No.
ECG3000	Indicator Lights, Diagnostic and Panel Displays, Printed Circuit Board Indicators, Miniature Low Profile Package	Clear Red	1.65	5.0	40	80	80	1.4	4	P1
ECG3001		Flooded Red	1.65	5.0	40	80	80	1.0	4	P1
ECG3002		Clear Yellow	2.10	5.0	35	105	80	1.0	2	P1
ECG3003		Clear Green	2.20	5.0	35	105	80	1.0	2	P1
ECG3004	Diagnostic or Indicator Lights in Low-Power/Low Current Environments, MOS Compatible	Red	1.60	5.0	35	105	25	2.0	2	P2
ECG3007	General Purpose Indicators, Developmental Projects, Breadboards	Red	1.68	5.0	50	100	70	2.5	4	P3
ECG3008		Bright Red	2.00	5.0	35	105	90	5.0	2	P3
ECG3009		Orange	2.00	5.0	35	105	90	5.0	2	P3
ECG3010		Green	2.20	5.0	35	105	90	1.0	2	P3
ECG3011		Yellow	2.10	5.0	35	105	90	3.0	2	P3
ECG3012A	Panel Circuit Indicators, Low Drive Power, High Intensity Visible Emission	Diffused Red	2.20	4.0	25	70	30	3.5	4	P4A
ECG3013A		Clear Red Jewel	2.80	4.0	25	70	30	3.5	4	P5A
ECG3014A		Green	2.8	4.0	25	70	30	10	2	P4A
ECG3015A		Clear Green Jewel	2.10	4.0	25	70	30	12	2	P5A
ECG3016A	Two Color Panel Circuit Indicator	Red or Green	2.15	4.0	25	68	60	.8	2	P6A
ECG3018	Instruments, Printed Circuit Board Indicators, Boardmounted Panel Display	Soft Red	1.65	5.0	100	180	90	1.6	2*	P7
ECG3019		Soft Red	1.65	5.0	100	180	60	3.0	2*	P7
ECG3020	Computers, General Purpose Indicators, Instruments, Test Systems, Mini- and Micro-Processors, Process Controlled Industrial Systems, Sorting Machines, Assembly Equipment, Vending Machines, Telephone Equipment, Backlight Panels. High Intensity Indicators in Four Colors	Flooded Red	1.70	5.0	100	180	80	1.6	2*	P8
ECG3021		Yellow	2.10	5.0	35	105	65	6.0	2*	P8
ECG3022		Bright Red	2.00	5.0	35	105	65	6.0	2*	P8
ECG3023		Orange	2.00	5.0	35	105	65	6.0	2*	P8
ECG3024		Diffused Green	2.20	5.0	35	105	65	1.5	2*	P8
ECG3025	Instruments, Printed Circuit Board Indicators, Boardmounted Panel Display	Red	1.80	5.0	100	180	40	3.0	2*	P9
ECG3026	Polarity Indication Tri-State Indicator, Flow Direction Display, Instruments, Tester Displays, Educational Aids	Red or Green	1.65 - R 2.20 - G	--	70 - R 35 - G	200	50	.5 - G 1.5 - R	1*	P10
ECG3030	Flashing Red LED with Integral IC. Applications Include Status Indicators and Warning Lights, Pulse Rate = 3 Hz Typ at 5 VDC	Flashing Red	Max V Applied 5.25	.4	20	--	40	1.2	1	P9A
ECG3130	Flashing Yellow LED with Integral IC. For Status Indicators and Warning Lights, Pulse Rate = 2.5 Hz Typ at 5 V	Flashing Yellow	Max V Applied 5.25	.4	20	--	40	3	1	P9A
ECG3131	Flashing Green LED with Integral IC. For Status Indicators and Warning Lights, Pulse Rate = 2.5 Hz Typ at 5 V	Flashing Green	Max V Applied 5.25	.4	20	--	40	2	1	P9A

\* Package includes 2 piece panel mounting grommets consisting of 1 lamp holder and 1 collar for each device.

# Discrete LED Indicators (cont'd)

ECG Type	Description/Application	Viewed Color	Forward Voltage VF (V)	Reverse Voltage VR (V)	Max DC Forward Current IF (mA)	Maximum Power Diss. PD (mW)	Typical Viewing Angle Degrees	Typical Luminous Intensity MCD	Qty Per Pkg	Fig. No.
ECG3160	Rectangular LEDs. Applications Include Bar Graph Displays, Level Meters, Panel Displays, Instrumentation and General Purpose Indicators	Red	1.90	3.0	30	70	50	.4	5	P12
ECG3161		Green	2.10	3.0	30	70	50	.7	5	P12
ECG3162		Yellow	2.10	3.0	30	70	50	2.0	5	P12
ECG3163		Red	1.90	3.0	30	70	50	.4	5	P13
ECG3164		Green	2.10	3.0	30	70	50	.7	5	P13
ECG3165		Yellow	2.10	3.0	30	70	50	1.5	5	P13
ECG3166		Red	1.90	3.0	30	70	50	.5	5	P14
ECG3167		Green	2.10	3.0	30	70	50	.7	5	P14
ECG3168		Yellow	2.10	3.0	30	70	50	2.0	5	P14
ECG3169	Square LED, Used as Level Indicator, Panel Display and General Purpose	Diffused Red	2.8	5.0	20	--	--	1.5	5	P49
ECG3170		Diffused Green	2.8	5.0	20	--	--	2.0	5	P49
ECG3171		Diffused Yellow	2.8	5.0	20	--	--	2.0	5	P49
ECG3172	Triangular LED, Used as Location Indicator and Line Finder	Diffused Red	2.8	4.0	25	70	50	.4	5	P50
ECG3173		Diffused Green	2.8	4.0	30	90	50	1.0	5	P50
ECG3174		Diffused Yellow	2.8	4.0	30	90	50	1.0	5	P50
ECG3180	P. C. Mount. LED, Used as Panel Indicators, Backlight Legends, Light Arrays. Mounting Grommet Supplied With Each LED	Red	2.5	5.0	35	200	120	4.5	2	P51
ECG3181		Green	3	5.0	30	200	120	4.5	2	P51
ECG3182		Yellow	2.5	5.0	25	200	120	4.5	2	P51

# Discrete LED Indicator Outlines

**Fig. P1**  
ECG3000 - Red  
ECG3001 - Red  
ECG3002 - Yel  
ECG3003 - Grn

**Fig. P2**  
ECG3004 - Red

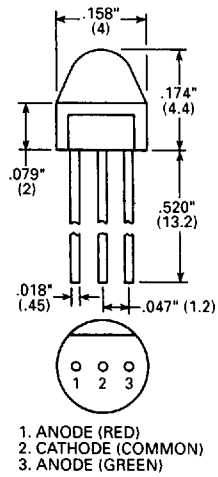
**Fig. P3**  
ECG3007 - Red  
ECG3008 - Red  
ECG3009 - Orn  
ECG3010 - Grn  
ECG3011 - Yel

**Fig. P4A**  
ECG3012A - Red  
ECG3014A - Grn

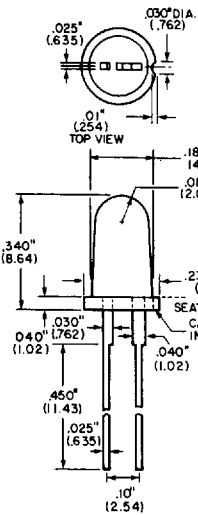
**Fig. P5A**  
ECG3013A - Red  
ECG3015A - Grn

# Discrete LED Indicator Outlines (cont'd)

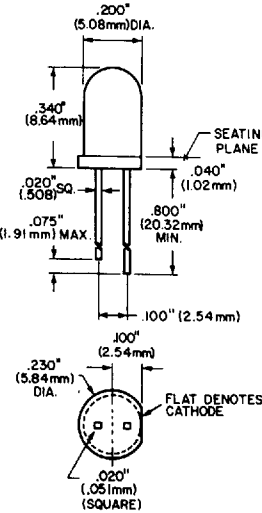
**Fig. P6A**  
ECG3016A  
Red or Grn



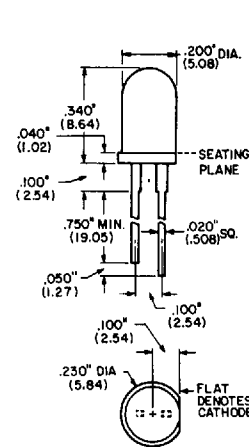
**Fig. P7**  
ECG3018 - Red  
ECG3019 - Red



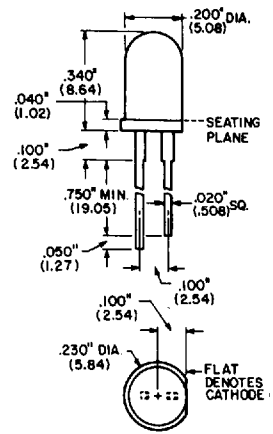
**Fig. P8**  
ECG3020 - Red  
ECG3021 - Yel  
ECG3022 - Red  
ECG3023 - Orn  
ECG3024 - Grn



**Fig. P9**  
ECG3025 - Red

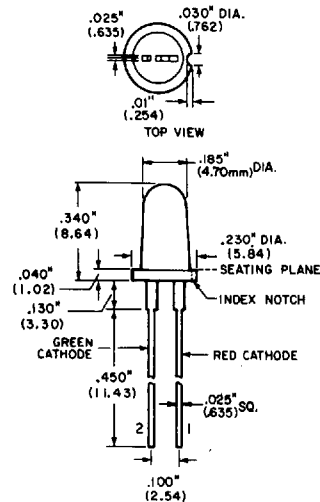


**Fig. P9A**  
ECG3030 - •  
Flashing Red  
ECG3130 -  
Flashing Yel  
ECG3131 -  
Flashing Grn

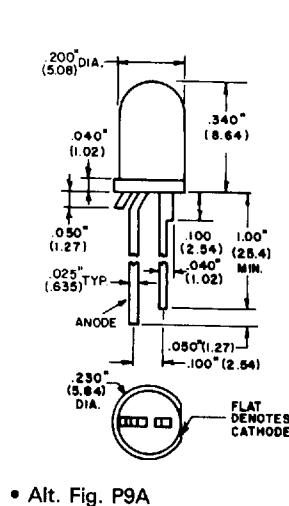


• Alt. Fig. P11

**Fig. P10**  
ECG3026 -  
Red or Grn

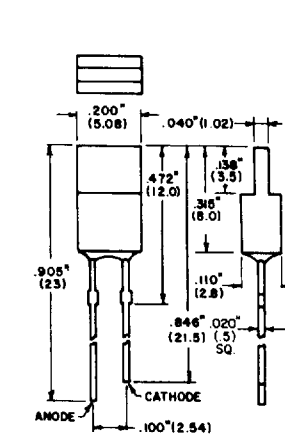


**Fig. P11**  
ECG3030 - •  
Flashing Red

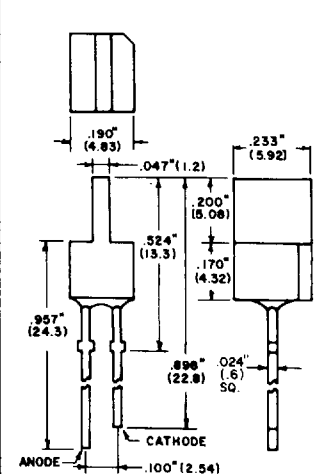


• Alt. Fig. P9A

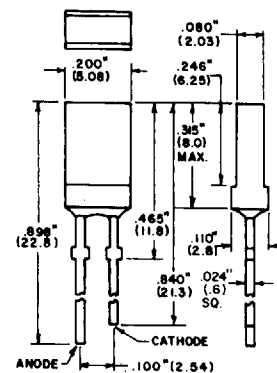
**Fig. P12**  
ECG3160 - Red  
ECG3161 - Grn  
ECG3162 - Yel



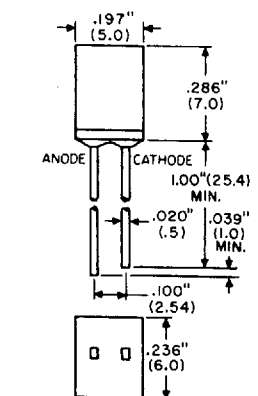
**Fig. P13**  
ECG3163 - Red  
ECG3164 - Grn  
ECG3165 - Yel



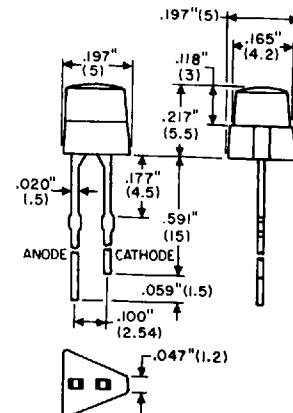
**Fig. P14**  
ECG3166 - Red  
ECG3167 - Grn  
ECG3168 - Yel



**Fig. P49**  
ECG3169 - Red  
ECG3170 - Grn  
ECG3171 - Yel



**Fig. P50**  
ECG3172 - Red  
ECG3173 - Grn  
ECG3174 - Yel



**Fig. P51**  
ECG3180 - Red  
ECG3181 - Grn  
ECG3182 - Yel

