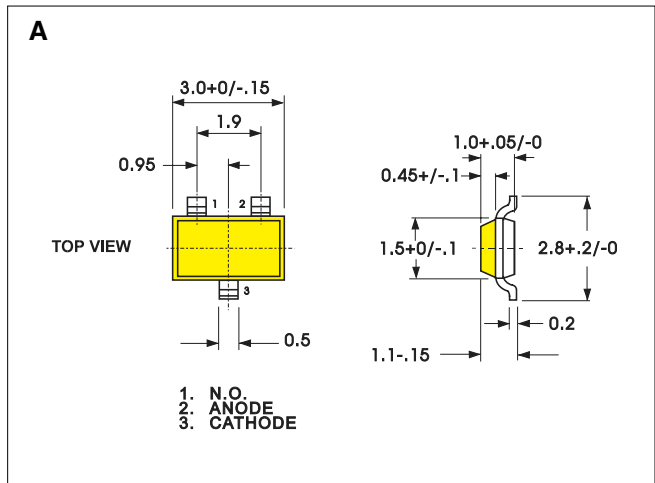


## SMT Bright White LEDs

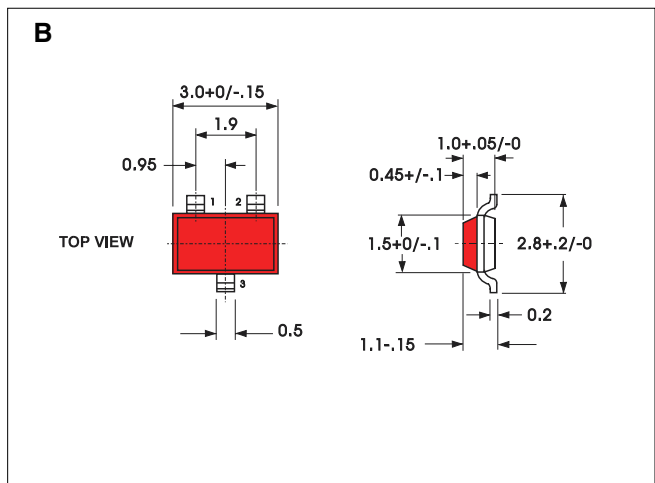
	Line No.	Part No.	Size	Lens	Luminous Intensity at 20mA		Viewing Angle 20°	Forward Voltage at 20mA		Reverse Current (V <sub>R</sub> =5.0V)	Chromaticity Coordinates		Drawing
					Minimum	Typical		Typical	Maximum		X Typ.	Y Typ.	
○ WHITE	3	E1008	SMT	Clear	90mcd	150mcd	120°	3.5V	4.0V	10μA	0.31	0.32	C



## Surface Mount LEDs, SOT-23 Package

	Line No.	Part No.	Lens	Luminous Intensity at 20mA		Viewing Angle 2θ½	Forward Voltage at 20mA		Peak Wave Length at 20mA	Drawing
				Minimum	Typical		Typical	Maximum		
● RED	1	E40	Clear	1.0mcd	3.5mcd	140°	2.1V	2.8V	635nm	A
● YELLOW	2	E41	Clear	1.0mcd	3.0mcd	140°	2.1V	2.8V	585nm	A
● GREEN	3	E42	Clear	1.0mcd	3.0mcd	140°	2.1V	2.8V	565nm	A

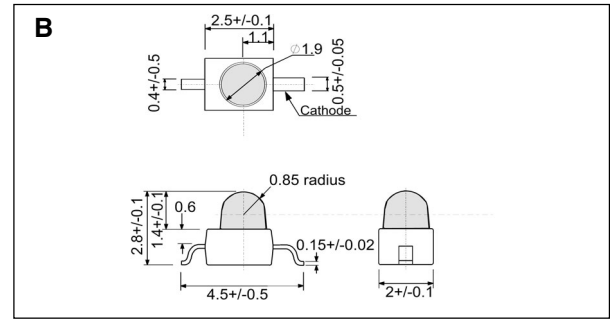
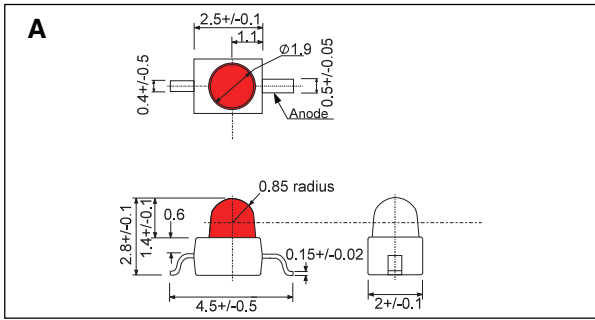
Tape & Reel packaging is standard, 3,000 LEDs per reel  
Recommended soldering pad, see page 84, number 1



## Surface Mount, Bi-Color LEDs, SOT-23 Package

	Line No.	Part No.	Luminous Intensity at 20mA		Viewing Angle 2θ½	Forward Voltage at 20mA		Peak Wave Length at 20mA	Terminals	Drawing
			Minimum	Typical		Typical	Maximum			
● RED & ● GREEN	4	E43	1mcd 1mcd	3mcd 3mcd	140° 140°	2.1V 2.2V	2.8V 2.5V	635nm 565nm	1.Red Cathode 2.Green Cathode 3.Anode	B
● RED & ● YELLOW	5	E44	1mcd 1mcd	3mcd 3mcd	140° 140°	2.1V 2.2V	2.8V 2.5V	635nm 585nm	1.Red Cathode 2.Yellow Cathode 3.Anode	B
● GREEN & ● YELLOW	6	E45	1mcd 1mcd	3mcd 3mcd	140° 140°	2.1V 2.2V	2.8V 2.5V	565nm 585nm	1.Yellow Cathode 2.Green Cathode 3.Anode	B

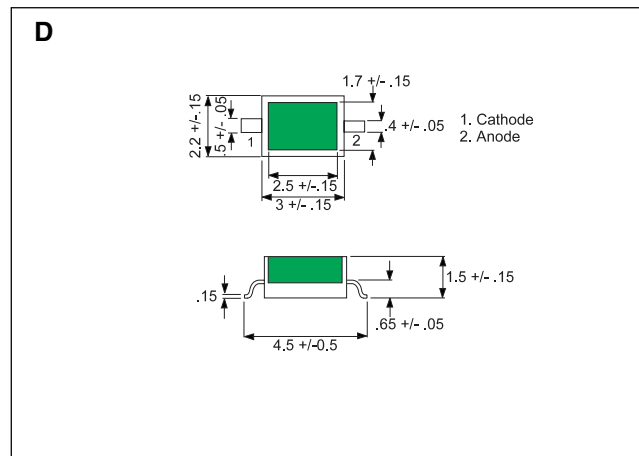
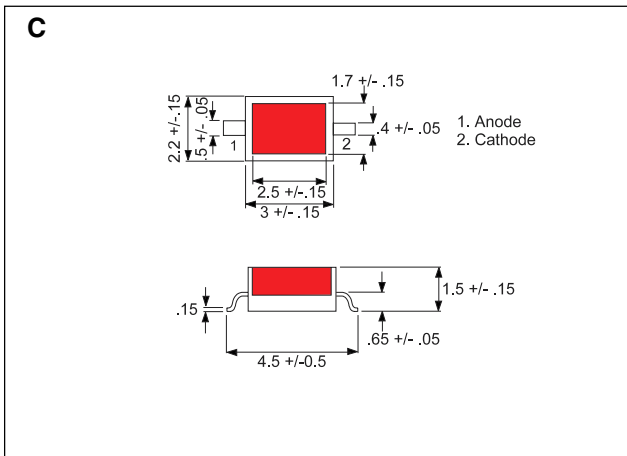
Tape & Reel packaging is standard, 3,000 LEDs per reel.  
Recommended soldering pad, see page 84, number 1



## Surface Mount, Gull Wing LEDs

	Line No.	Part No.	Lens	Luminous Intensity at 20mA		Viewing Angle 2θ½	Forward Voltage at 20mA		Peak Wave Length at 20mA	Drawing
				Minimum	Maximum		Typical	Maximum		
● ULTRA BRIGHT RED	1	E90	Clear	200.0mcd	1000.0mcd	30°	1.85V	2.50V	660nm	A
● HIGH EFFICIENCY RED	2	E91	Clear	20.0mcd	100.0mcd	30°	2.00V	2.50V	625nm	B
● YELLOW	3	E92	Clear	20.0mcd	70.0mcd	30°	2.10V	2.50V	590nm	B
● ULTRA BRIGHT YELLOW	4	E95	Clear	700.0mcd	1300.0mcd	30°	2.00V	2.50V	595nm	B
● GREEN	5	E93	Clear	20.0mcd	70.0mcd	30°	2.20V	2.50V	565nm	B
● PURE GREEN	6	E94	Clear	10.0mcd	40.0mcd	30°	2.25V	2.60V	555nm	B

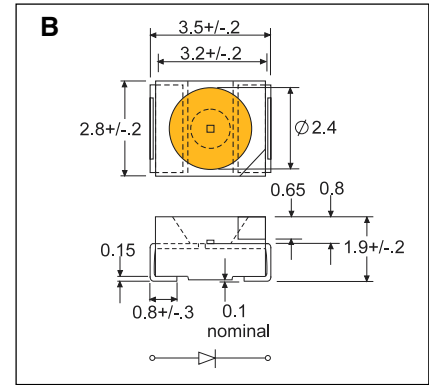
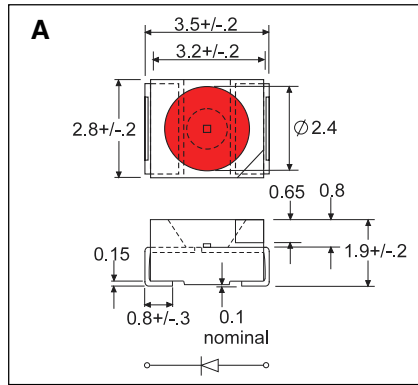
Tape & Reel packaging is standard, 1,000 LEDs per reel.  
Recommended soldering pad, see page 84, number 2.



## Surface Mount LEDs (Rectangular Lens)

	Line No.	Part No.	Lens	Luminous Intensity at 20mA		Viewing Angle 2θ½	Forward Voltage at 20mA		Peak Wave Length at 20mA	Drawing
				Minimum	Maximum		Typical	Maximum		
● ULTRA BRIGHT RED	7	E80	Translucent Red	70mcd	100mcd	90°	1.85V	2.50V	660nm	C
● HIGH EFFICIENCY RED	8	E81	Translucent Red	12.5mcd	20.0mcd	90°	2.00V	2.50V	625nm	D
● YELLOW	9	E82	Translucent Yellow	5.0mcd	20.0mcd	90°	2.10V	2.50V	590nm	D
● GREEN	10	E83	Translucent Green	8.0mcd	20.0mcd	90°	2.20V	2.50V	565nm	D

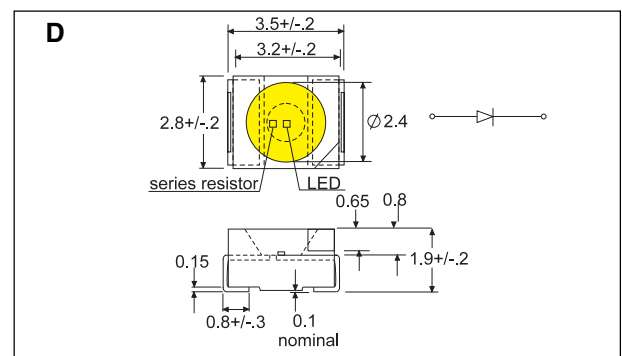
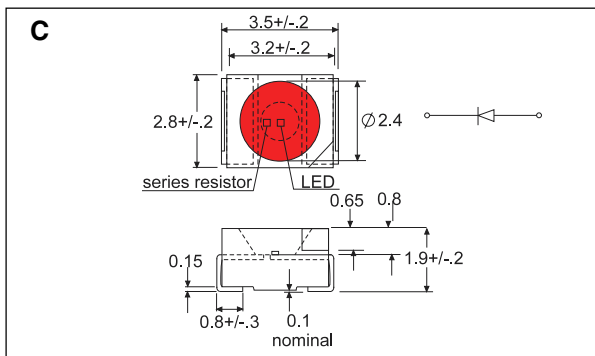
Tape & Reel packaging is standard, 1500 LEDs per reel.  
Recommended soldering pad, page 84, number 3.



## Surface Mount LEDs (Round Lens)

Line No.	Part No.	Lens	Luminous Intensity at 20mA		Viewing Angle 2θ½	Forward Voltage at 20mA		Peak Wave Length at 20mA	Drawing	
			Minimum	Maximum		Typical	Maximum			
● ULTRA BRIGHT RED	1	E70	Translucent Red	80.0mcd	120.0mcd	120°	1.85V	2.50V	660nm	A
● HIGH EFFICIENCY RED	2	E71	Translucent Red	12.5mcd	30.0mcd	120°	2.00V	2.50V	625nm	B
● YELLOW	3	E72	Translucent Yellow	8.0mcd	20.0mcd	120°	2.10V	2.50V	590nm	B
● GREEN	4	E73	Translucent Green	12.5mcd	30.0mcd	120°	2.20V	2.50V	565nm	B
● PURE GREEN	5	E74	Clear	2.0mcd	8.0mcd	120°	2.25V	2.60V	555nm	B
● BLUE	6	E75	Translucent Blue	2.0mcd	5.0mcd	110°	4.5V	5.5V	430nm	B
● ULTRA BRIGHT YELLOW	7	E77	Translucent Yellow	40.0mcd	100mcd	120°	2.0V	2.4V	595nm	B
● ORANGE	8	E78	Translucent Orange	12.5mcd	40.0mcd	120°	2.0V	2.6V	610nm	B
● ULTRA BRIGHT ORANGE	9	E79	Translucent Orange	200mcd	400mcd	120°	1.95V	2.5V	620nm	B

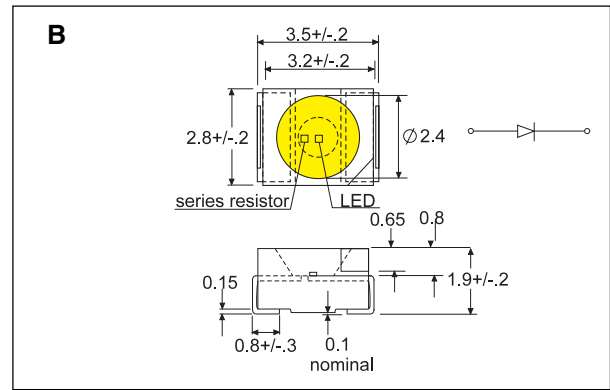
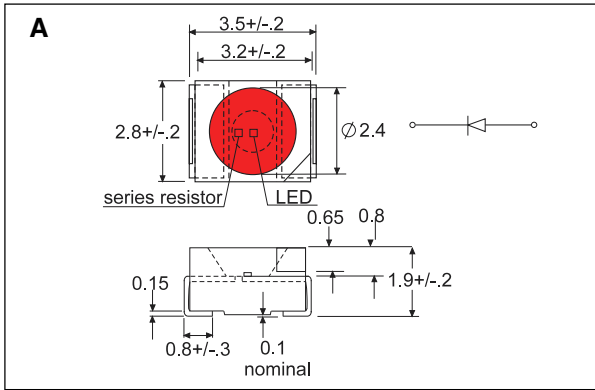
Tape & Reel packaging is standard, 1500 LEDs per reel. Recommended Soldering Pad Page 84, number 4.



## Surface Mount LEDs with Resistor - 5V

Line No.	Part No.	Lens	Voltage Range		Luminous Intensity at 5VDC		Viewing Angle 2θ½	Current Range at 5VDC		Peak Wave Length at 5VDC	Drawing	
			Minimum	Maximum	Minimum	Maximum		Minimum	Maximum			
● RED	10	E70-5V	Translucent	4.0VDC	6.0VDC	20.0mcd	80.0mcd	120°	8mA	16mA	660nm	C
● RED	11	E71-5V	Translucent	4.0VDC	6.0VDC	5.0mcd	20.0mcd	120°	8mA	16mA	625nm	D
● YELLOW	12	E72-5V	Translucent	4.0VDC	6.0VDC	3.2mcd	8.0mcd	120°	8mA	16mA	590nm	D
● GREEN	13	E73-5V	Translucent	4.0VDC	6.0VDC	5.0mcd	12.5mcd	120°	8mA	16mA	565nm	D

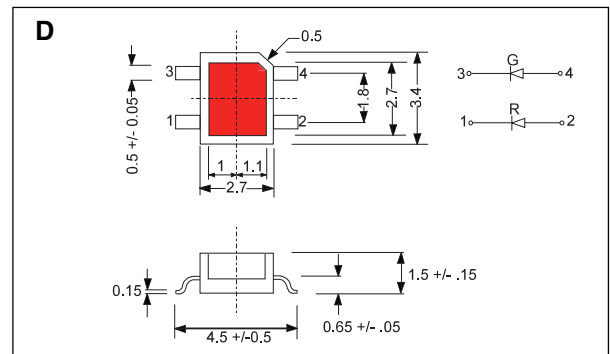
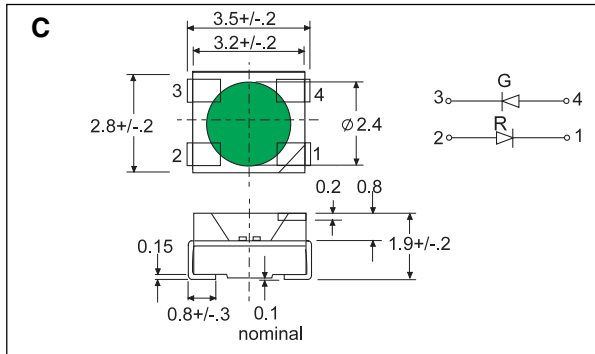
Tape & Reel packaging is standard, 1500 LEDs per reel. Recommended soldering pad, page 84, number 4.



## Surface Mount LEDs with Resistor - 12V

Line No.	Part No.	Lens	Voltage Range		Luminous Intensity at 12VDC		Viewing Angle 2θ½	Current Range at 12VDC		Peak Wave Length at 12VDC	Drawing	
			Minimum	Maximum	Minimum	Maximum		Minimum	Maximum			
● RED	1	E70-12V	Translucent	9.5VDC	13.0VDC	20.0mcd	80.0mcd	120°	8mA	16mA	660nm	A
● RED	2	E71-12V	Translucent	9.5VDC	13.0VDC	5.0mcd	20.0mcd	120°	8mA	16mA	625nm	B
● YELLOW	3	E72-12V	Translucent	9.5VDC	13.0VDC	3.2mcd	8.0mcd	120°	8mA	16mA	590nm	B
● GREEN	4	E73-12V	Translucent	9.5VDC	13.0VDC	5.0mcd	12.5mcd	120°	8mA	16mA	565nm	B

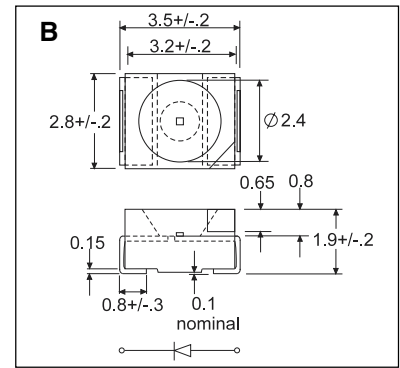
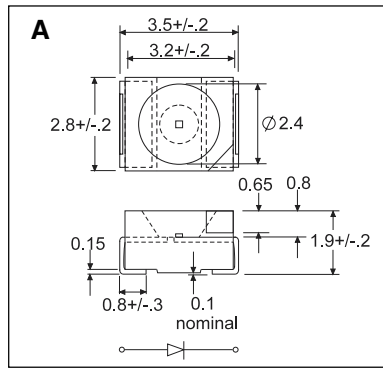
Tape & Reel packaging is standard, 1500 LEDs per reel.  
Recommended soldering pad, page 84, number 4.



## Surface Mount, Bi-Color LEDs

Line No.	Part No.	Lens	Luminous Intensity at 20mA		Viewing Angle 2θ½	Forward Voltage at 20mA		Peak Wave Length at 20mA	Leads	Drawing
			Minimum	Maximum		Typical	Maximum			
● RED & ● GREEN	5	E76	Clear	12.5mcd 32.0mcd	120° 120°	2.0V 2.2V	2.5V 2.5V	625nm 565nm	1.Red Cathode 2.Red Anode 3.Green Cathode 4.Green Anode	C
● RED & ● GREEN	6	E86	White Diffused	8.0mcd 8.0mcd	90° 90°	2.0V 2.2V	2.5V 2.5V	625nm 565nm	1.Red Cathode 2.Red Anode 3.Green Cathode 4.Green Anode	D

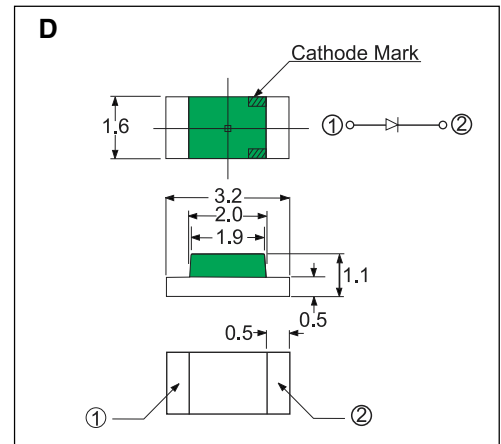
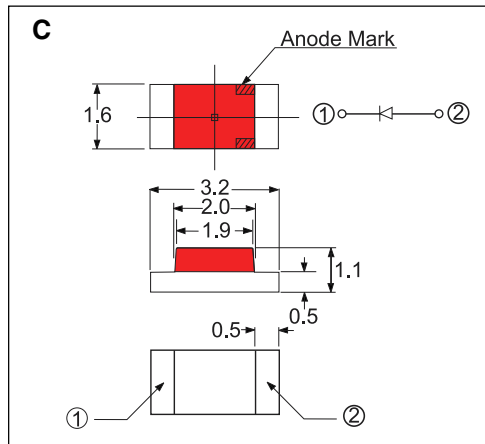
Tape & Reel packaging is standard, 1500 LEDs (E76), 1000 LEDs (E86), per reel.  
Recommended soldering pad: E76 - page 84, number 5; E86 - page 84, number 6.



## Surface Mount Infrared LEDs: 880nm, 940nm

Line No.	Part No.	Lens	Radiant Power at 20mA		Viewing Angle 20½°	Forward Voltage at 20mA		Peak Wave Length at 20mA	Drawing	
			Minimum	Maximum		Typical	Maximum			
INFRARED	1	E25A	Clear	1.25mW/sr	5.0mW/sr	120°	1.2V	1.5V	940nm	A
INFRARED	2	E26A	Translucent Blue	1mW/sr	5.0mW/sr	120°	1.4V	1.7V	880nm	B

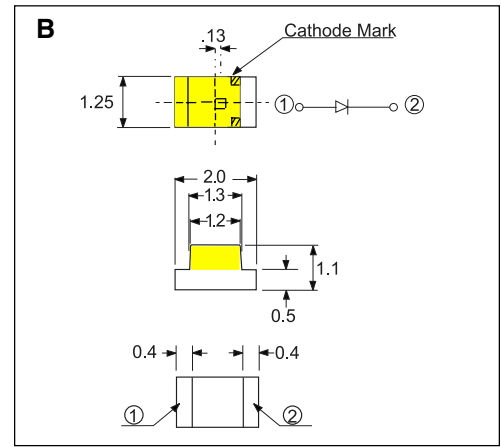
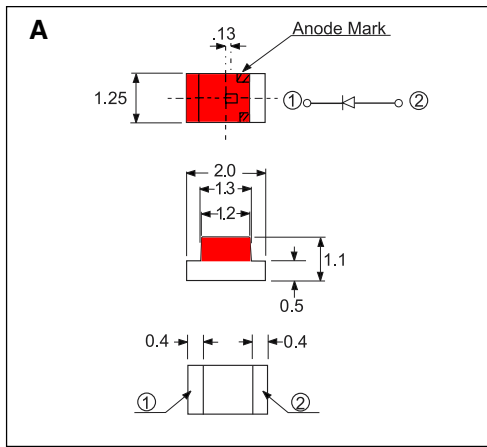
Tape & Reel packaging is standard, 1,500 LEDs per reel.  
 Recommended soldering pad, see page 84, number 4.



## Low Profile Surface Mount LEDs (standard package 1206)

Line No.	Part No.	Lens	Luminous Intensity at 20mA		Viewing Angle 20½°	Forward Voltage at 20mA		Peak Wave Length at 20mA	Drawing	
			Minimum	Maximum		Typical	Maximum			
● ULTRA BRIGHT RED	3	E510	Translucent Red	40.0mcd	70.0mcd	120°	1.85V	2.50V	660nm	C
● HIGH EFFICIENCY RED	4	E511	Translucent Red	5.0mcd	12.0mcd	120°	2.00V	2.50V	625nm	D
● YELLOW	5	E512	Translucent Yellow	3.2mcd	8.0mcd	120°	2.10V	2.50V	590nm	D
● GREEN	6	E513	Translucent Green	3.2mcd	8.0mcd	120°	2.20V	2.50V	565nm	D

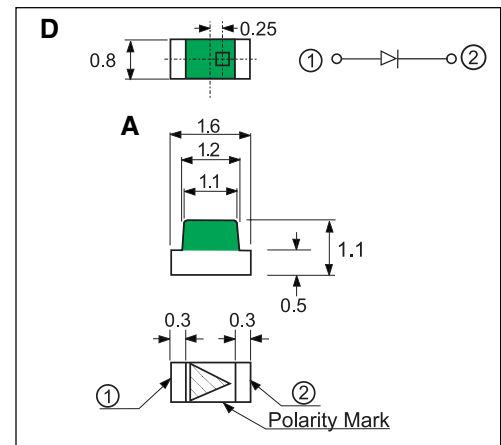
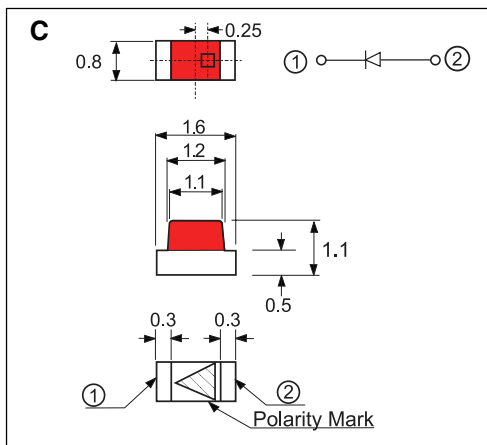
Tape & Reel packaging is standard, 2000 LEDs per reel.  
 Recommended Soldering Pad Page 84, number 7 .



## Low Profile Surface Mount LEDs (standard package 0805)

	Line No.	Part No.	Lens	Luminous Intensity at 20mA		Viewing Angle 2θ½	Forward Voltage at 20mA		Peak Wave Length at 20mA	Drawing
				Minimum	Maximum		Typical	Maximum		
● ULTRA BRIGHT RED	1	E520	Translucent Red	40.0mcd	70.0mcd	120°	1.85V	2.50V	660nm	A
● HIGH EFFICIENCY RED	2	E521	Translucent Red	5.0mcd	12.0mcd	120°	2.00V	2.50V	625nm	B
● YELLOW	3	E522	Translucent Yellow	3.2mcd	8.0mcd	120°	2.10V	2.50V	590nm	B
● GREEN	4	E523	Translucent Green	3.2mcd	8.0mcd	120°	2.20V	2.50V	565nm	B

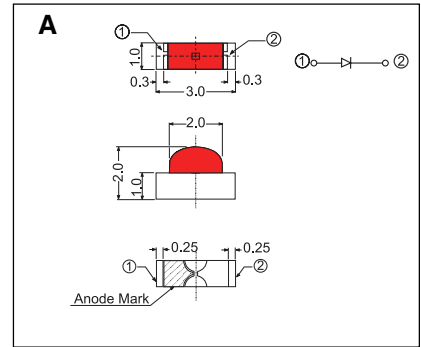
Tape & Reel packaging is standard, 2000 LEDs per reel.  
 Recommended Soldering Pad Page 84, number 8.



## Low Profile Surface Mount LEDs (standard package 0603)

	Line No.	Part No.	Lens	Luminous Intensity at 20mA		Viewing Angle 2θ½	Forward Voltage at 20mA		Peak Wave Length at 20mA	Drawing
				Minimum	Maximum		Typical	Maximum		
● ULTRA BRIGHT RED	5	E530	Translucent Red	40.0mcd	70.0mcd	120°	1.85V	2.50V	660nm	C
● HIGH EFFICIENCY RED	6	E531	Translucent Red	5.0mcd	12.0mcd	120°	2.00V	2.50V	625nm	D
● YELLOW	7	E532	Translucent Yellow	3.2mcd	8.0mcd	120°	2.10V	2.50V	590nm	D
● GREEN	8	E533	Translucent Green	3.2mcd	8.0mcd	120°	2.20V	2.50V	565nm	D

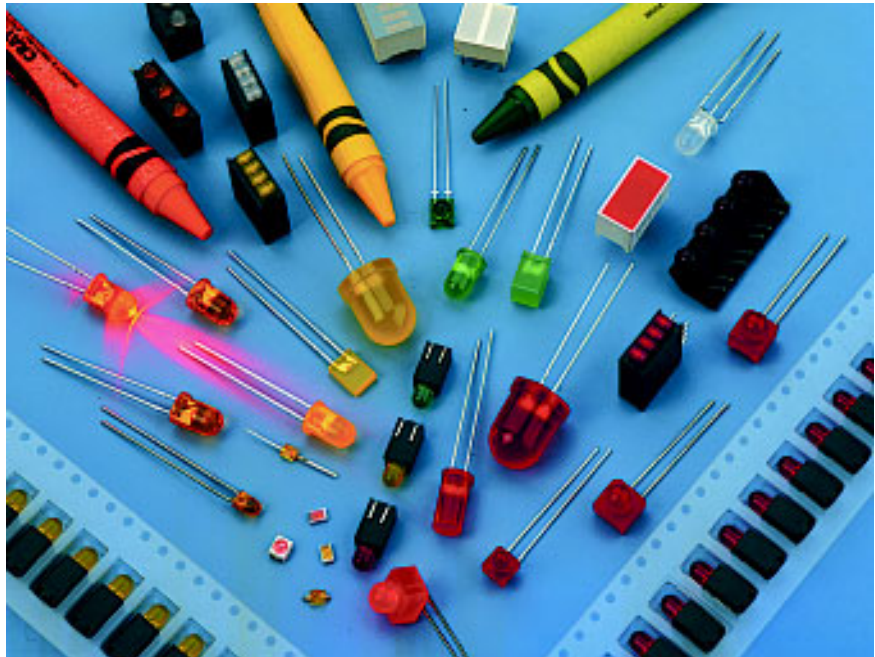
Tape & Reel packaging is standard, 2000 LEDs per reel.  
 Recommended Soldering Pad Page 84, number 9.



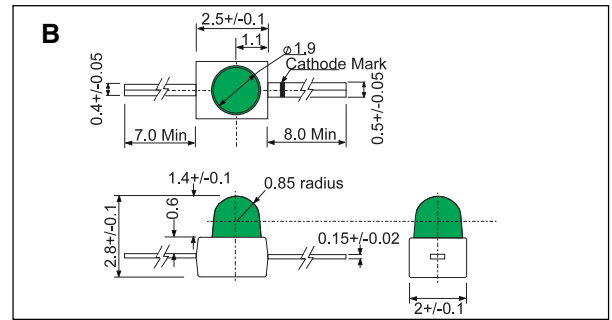
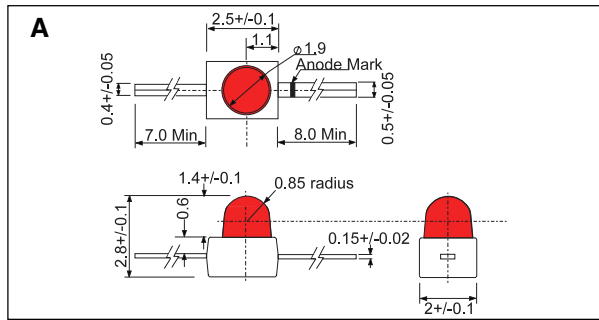
## Right Angle/Side Lighting Surface Mount LEDs

	Line No.	Part No.	Lens	Luminous Intensity at 20mA		Viewing Angle 2θ½	Forward Voltage at 20mA		Peak Wave Length at 20mA	Drawing
				Minimum	Maximum		Typical	Maximum		
● ULTRA BRIGHT RED	1	E540	Translucent Red	40.0mcd	70.0mcd	120°	1.85V	2.50V	660nm	A
● HIGH EFFICIENCY RED	2	E541	Translucent Red	5.0mcd	12.0mcd	120°	2.00V	2.50V	625nm	A
● YELLOW	3	E542	Translucent Yellow	3.2mcd	8.0mcd	120°	2.10V	2.50V	590nm	A
● GREEN	4	E543	Translucent Green	3.2mcd	12.5mcd	120°	2.20V	2.50V	565nm	A

Tape & Reel packaging is standard, 2000 LEDs per reel.  
 Recommended Soldering Pad Page 84, number 10.







## Axial Lead LEDs

	Line No.	Part No.	Lens	Luminous Intensity at 20mA		Viewing Angle 2θ½	Forward Voltage at 20mA		Peak Wave Length at 20mA	Drawing
				Minimum	Maximum		Typical	Maximum		
● ULTRA BRIGHT RED	1	E36A	Translucent Red	200.0mcd	1000.0mcd	30°	1.85V	2.50V	660nm	A
● HIGH EFFICIENCY RED	2	E39A	Translucent Red	20.0mcd	100.0mcd	30°	2.00V	2.50V	625nm	B
● YELLOW	3	E37A	Translucent Yellow	20.0mcd	70.0mcd	30°	2.10V	2.50V	590nm	B
● ULTRA BRIGHT YELLOW	4	E37B	Translucent Yellow	700.0mcd	1300mcd	30°	2.00V	2.50V	595nm	B
● GREEN	5	E38A	Translucent Green	20.0mcd	70.0mcd	30°	2.20V	2.50V	565nm	B