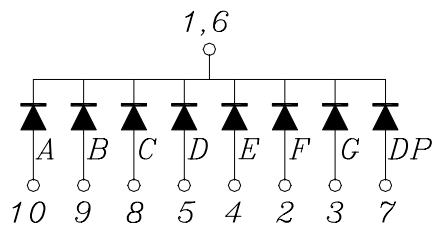
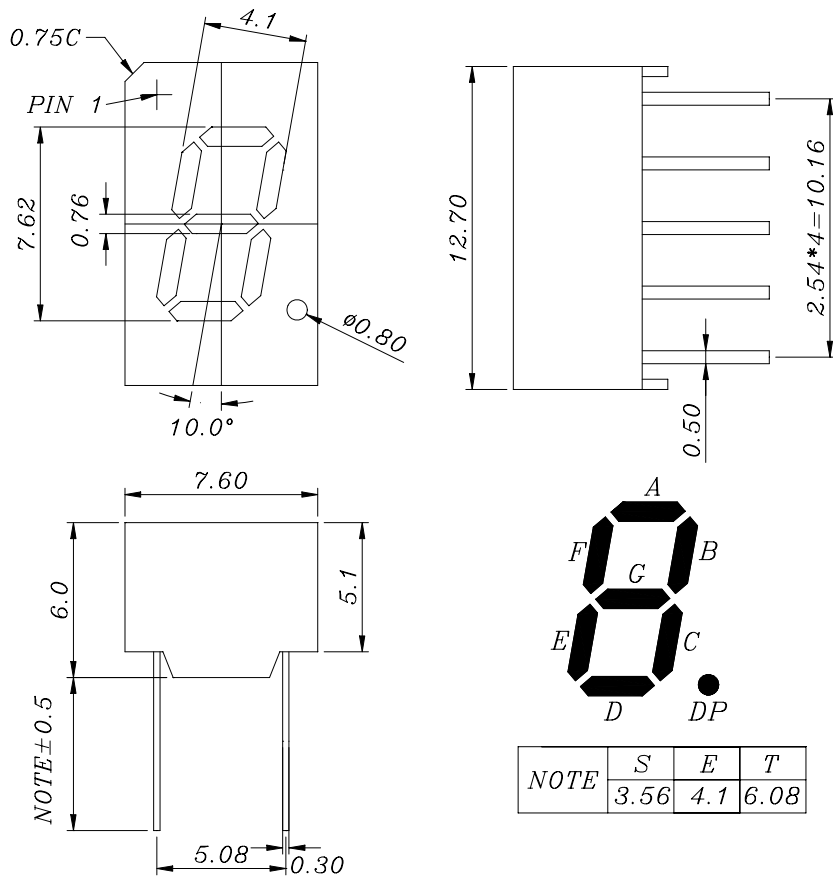




**Package Dimensions**



- 1 COMMON CATHODE
- 2 ANODE F
- 3 ANODE G
- 4 ANODE E
- 5 ANODE D
- 6 COMMON CATHODE
- 7 ANODE DP
- 8 ANODE C
- 9 ANODE B
- 10 ANODE A

**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.30\text{mm}(.012\text{'})$  unless otherwise noted.
3. Protruded resin under flange is  $1.0\text{mm}(.04\text{'})$  max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.



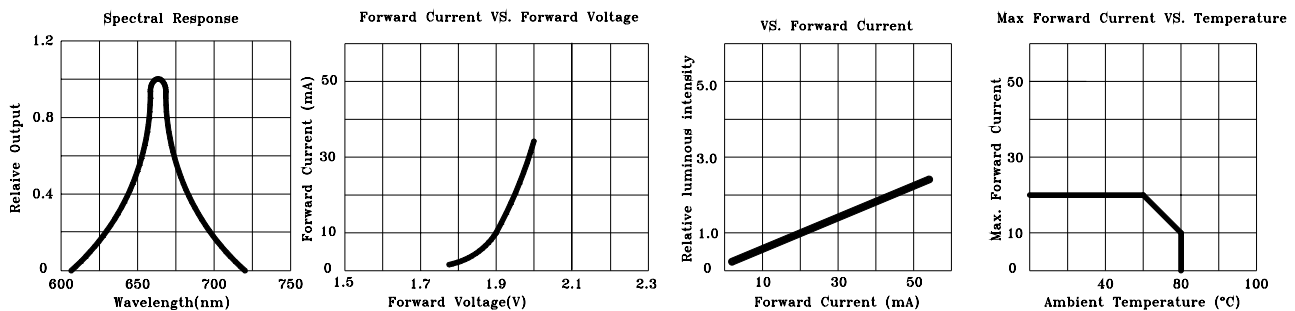
**Electrical / Optical Characteristics at TA=25°C**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Average Luminous Intensity	IV	1	7		mcd	IF = 20mA
Peak Emission Wavelength	$\lambda P$		660		nm	IF = 20mA
Dominant Wavelength	$\lambda d$	635	639	650	nm	IF = 20mA
Spectral Line Half-Width	$\Delta \lambda$		20		nm	IF = 20mA
Forward Voltage, any Segment or D..P.	VF		1.9	2.4	V	IF = 20mA
Reverse Current, any Segment or D..P	IR			100	$\mu A$	VR = 5V
Luminous Intensity Matching Ratio	Iv-m			2:1		IF = 20mA

**Absolute Maximum Ratings at TA=25°C**

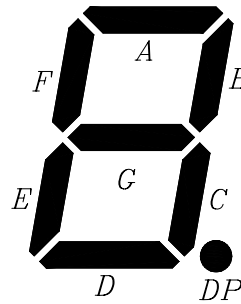
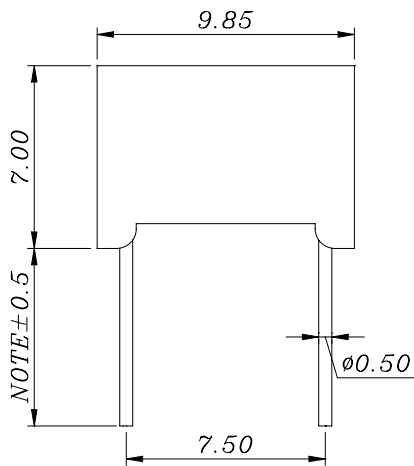
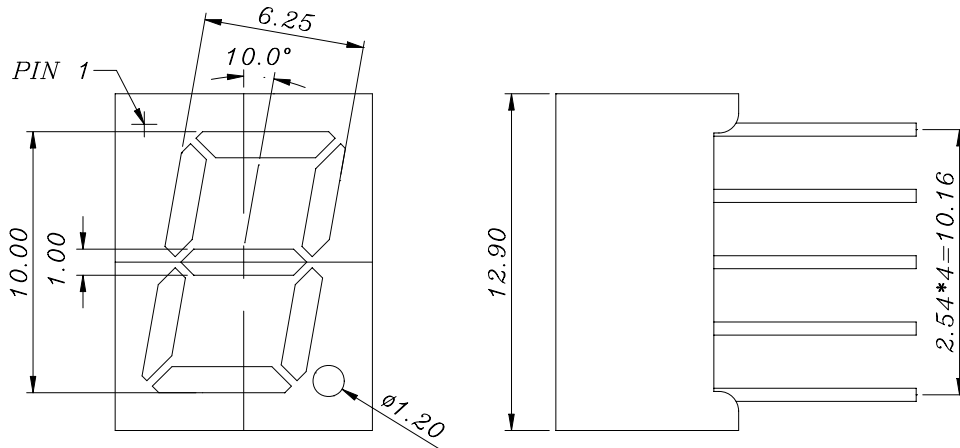
Parameter	Maximum Rating	Unit
Power Dissipation	45	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	90	mA
Continuous Forward Current	20	mA
Reverse Voltage	5	V
Operating Temperature Range	-20°C to + 80°C	
Storage Temperature Range	-55°C to + 100°C	
Lead Soldering Temperature [4.0mm(.157") From Body]	260°C for 5 Seconds	
Reflow Soldering	NO	

TYPICAL ELECTRON-OPTICAL CHARACTERISTIC CURVES  
25°C Free Air Temperature Unless Otherwise Specified

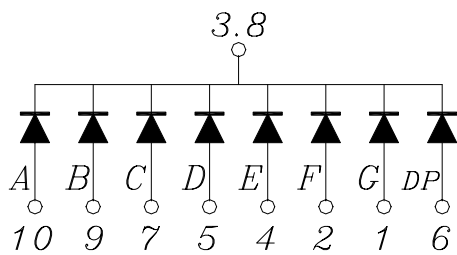




**Package Dimensions**



NOTE	S	E	T
	4.26	4.8	6.78



- 1 ANODE G
- 2 ANODE F
- 3 COMMON CATHODE
- 4 ANODE E
- 5 ANODE D
- 6 ANODE DP
- 7 ANODE C
- 8 COMMON CATHODE
- 9 ANODE B
- 10 ANODE A

**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.30\text{mm}(.012\text{'})$  unless otherwise noted.
3. Protruded resin under flange is  $1.0\text{mm}(.04\text{'})$  max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.



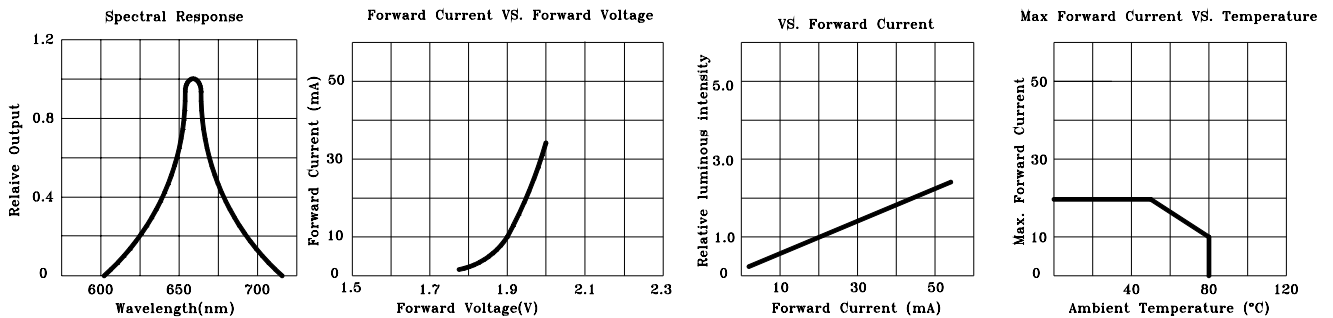
**Electrical / Optical Characteristics at TA=25°C**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Average Luminous Intensity	IV	7	12		mcd	IF = 20mA
Peak Emission Wavelength	$\lambda P$		660		nm	IF = 20mA
Dominant Wavelength	$\lambda d$	635	639	650	nm	IF = 20mA
Spectral Line Half-Width	$\Delta \lambda$		20		nm	IF = 20mA
Forward Voltage, any Segment or D..P.	VF		1.9	2.4	V	IF = 20mA
Reverse Current, any Segment or D..P	IR			100	$\mu A$	VR = 5V
Luminous Intensity Matching Ratio	Iv-m			2:1		IF = 20mA

**Absolute Maximum Ratings at TA=25°C**

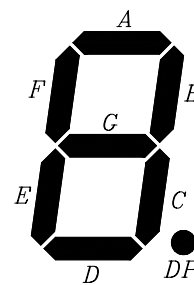
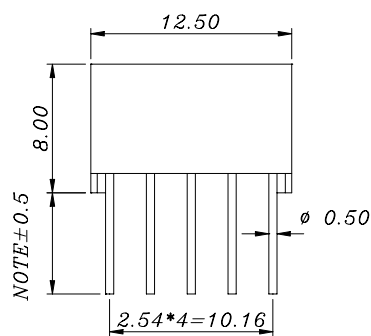
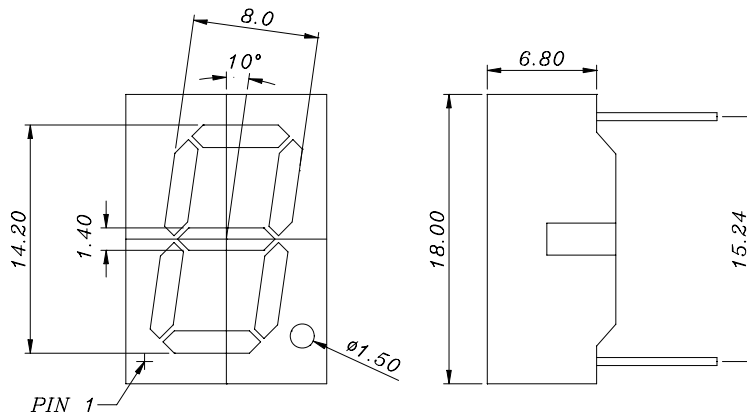
Parameter	Maximum Rating	Unit
Power Dissipation	45	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	90	mA
Continuous Forward Current	20	mA
Reverse Voltage	5	V
Operating Temperature Range	-20°C to + 80°C	
Storage Temperature Range	-55°C to + 100°C	
Lead Soldering Temperature [4.0mm(.157") From Body]	260°C for 5 Seconds	
Reflow Soldering	NO	

TYPICAL ELECTRON-OPTICAL CHARACTERISTIC CURVES  
25°C Free Air Temperature Unless Otherwise Specified

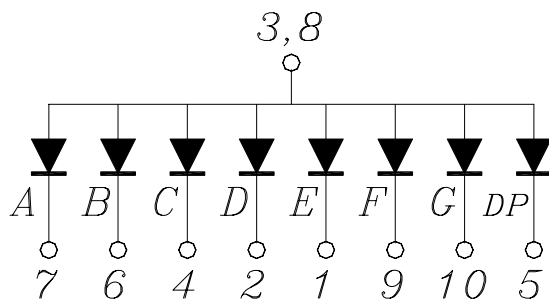




**Package Dimensions**



NOTE	S	E	T
	3.76	4.3	6.28



- 1 CATHODE E
- 2 CATHODE D
- 3 COMMON ANODE
- 4 CATHODE C
- 5 CATHODE DP
- 6 CATHODE B
- 7 CATHODE A
- 8 COMMON ANODE
- 9 CATHODE F
- 10 CATHODE G

**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.30\text{mm}(.012\text{'})$  unless otherwise noted.
3. Protruded resin under flange is  $1.0\text{mm}(.04\text{'})$  max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.