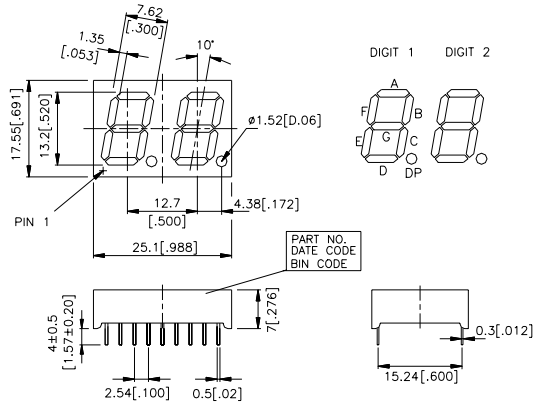
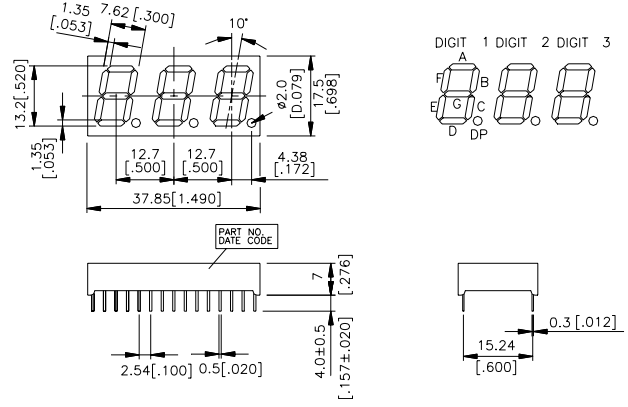




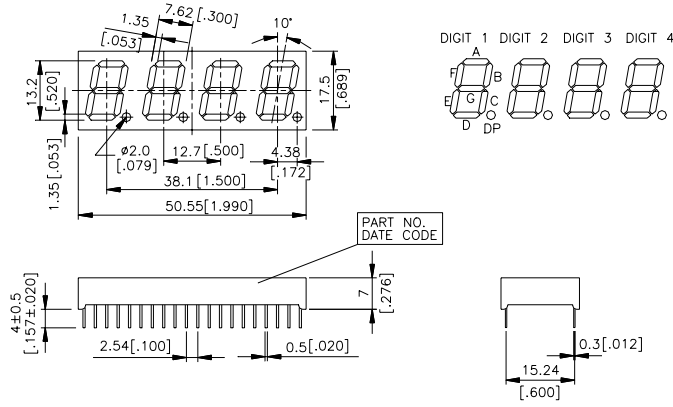
C.LTD-5250/5260



D.LTC-5336/5836



C.LTC-5337/5837



Notes: All dimensions are in millimeters (inches).  
Tolerance: ± 0.25mm (0.01") unless otherwise noted.

Devices

Part No. LTS-						Description	Package Dimension	Internal Circuit Diagram
AlGaAs Red	Bright Red	Green	Yellow	Red Orange	Hi.-Eff. Red			
546AWC	546AP	546AG	546AY	546AE	546AHR	Common Anode, Rt. Hand Decimal	A	A
547AWC	547AP	547AG	547AY	547AE	547AHR	Common Cathode, Rt. Hand Decimal	A	B
548AWC	548AP	548AG	548AY	548AE	548AHR	Common Anode, Rt. Hand Decimal	B	C
549AWC	549AP	549AG	549AY	549AE	549AHR	Common Cathode, Rt. Hand Decimal	B	D
Part No. LTD-						Description	Package Dimension	Internal Circuit Diagram
AlGaAs Red	Bright Red	Green	Yellow	Red Orange	Hi.-Eff. Red			
5250WC	5250P	5250G	5250Y	5250E	5250HR	Common Anode, Rt. Hand Decimal	C	E
5260WC	5260P	5260G	5260Y	5260E	5260HR	Common Cathode, Rt. Hand Decimal	C	F
Part No. LTC-						Description	Package Dimension	Internal Circuit Diagram
AlGaAs Red	Bright Red	Green	Yellow	Red Orange	Hi.-Eff. Red			
5336WC	5336P	5336G	5336Y	5336E	5336HR	Common Cathode, Rt. Hand Decimal	D	G
5836WC	5836P	5836G	5836Y	5836E	5836HR	Common Anode, Rt. Hand Decimal	D	H
5337WC	5337P	5337G	5337Y	5337E	5337HR	Common Cathode, Rt. Hand Decimal	E	I
5837WC	5837P	5837G	5837Y	5837E	5837HR	Common Anode, Rt. Hand Decimal	E	J

## Pin Connection

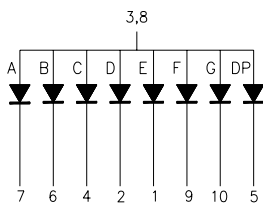
Pin No.	Connection			
	A.LTS-546A	B.LTS-547A	C.LTS-548A	D.LTS-549A
1.	Cathode E	Anode E	Cathode J	Anode J
2.	Cathode D	Anode D	No Connection	No Connection
3.	Common Anode*	Common Cathode*	Common Anode*	Common Cathode*
4.	Cathode C	Anode C	Cathode C	Anode C
5.	Cathode D.P.	Anode D.P.	Cathode D.P.	Anode D.P.
6.	Cathode B	Anode B	Cathode B	Anode B
7.	Cathode A	Anode A	No Connection	No Connection
8.	Common Anode*	Common Cathode*	Common Anode*	Common Cathode*
9.	Cathode F	Anode F	Cathode H	Anode H
10.	Cathode G	Anode G	Cathode G	Anode G

Pin No.	Connection	
	E.LTD-5250	F.LTD-5260
1.	Cathode E (Digit 1)	Anode E (Digit 1)
2.	Cathode D (Digit 1)	Anode D (Digit 1)
3.	Cathode C (Digit 1)	Anode C (Digit 1)
4.	Cathode D.P. (Digit 1)	Anode D.P. (Digit 1)
5.	Cathode E (Digit 2)	Anode E (Digit 2)
6.	Cathode D (Digit 2)	Anode D (Digit 2)
7.	Cathode G (Digit 2)	Anode G (Digit 2)
8.	Cathode C (Digit 2)	Anode C (Digit 2)
9.	Cathode D.P. (Digit 2)	Anode D.P. (Digit 2)
10.	Cathode B (Digit 2)	Anode B (Digit 2)
11.	Cathode A (Digit 2)	Anode A (Digit 2)
12.	Cathode F (Digit 2)	Anode F (Digit 2)
13.	Common Anode (Digit 2)	Common Cathode (Digit 2)
14.	Common Anode (Digit 1)	Common Cathode (Digit 1)
15.	Cathode B (Digit 1)	Anode B (Digit 1)
16.	Cathode A (Digit 1)	Anode A (Digit 1)
17.	Cathode G (Digit 1)	Anode G (Digit 1)
18.	Cathode F (Digit 1)	Anode F (Digit 1)

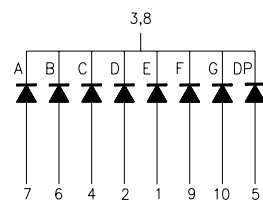
Pin No.	Connection			
	G.LTC-5336	H.LTC-5836	I.LTC-5337	I.LTC-5837
1.	Anode E (Digit 1)	Cathode E (Digit 1)	Anode E (Digit 1)	Cathode E (Digit 1)
2.	Anode D (Digit 1)	Cathode D (Digit 1)	Anode D (Digit 1)	Cathode D (Digit 1)
3.	Common Cathode (Digit 1)	Common Anode (Digit 1)	Common Cathode (Digit 1)	Common Anode (Digit 1)
4.	Anode C (Digit 1)	Cathode C (Digit 1)	Anode C (Digit 1)	Cathode C (Digit 1)
5.	Anode D.P.(Digit 1)	Cathode D.P. (Digit 1)	Anode D.P.(Digit 1)	Cathode D.P. (Digit 1)
6.	Anode E (Digit 2)	Cathode E (Digit 2)	Anode E (Digit 2)	Cathode E (Digit 2)
7.	Anode D (Digit 2)	Cathode D (Digit 2)	Anode D (Digit 2)	Cathode D (Digit 2)
8.	Common Cathode (Digit 2)	Common Anode (Digit 2)	Common Cathode (Digit 2)	Common Anode (Digit 2)
9.	Anode C (Digit 2)	Cathode C (Digit 2)	Anode C (Digit 2)	Cathode C (Digit 2)
10.	Anode D.P. (Digit 2)	Cathode D.P. (Digit 2)	Anode D.P. (Digit 2)	Cathode D.P. (Digit 2)
11.	Anode E (Digit 3)	Cathode E (Digit 3)	Anode E (Digit 3)	Cathode E (Digit 3)
12.	Anode D (Digit 3)	Cathode D (Digit 3)	Anode D (Digit 3)	Cathode D (Digit 3)
13.	Common Cathode (Digit 3)	Common Anode (Digit 3)	Common Cathode (Digit 3)	Common Anode (Digit 3)
14.	Anode C (Digit 3)	Cathode C (Digit 3)	Anode C (Digit 3)	Cathode C (Digit 3)
15.	Anode D.P. (Digit 3)	Cathode D.P. (Digit 3)	Anode D.P. (Digit 3)	Cathode D.P. (Digit 3)
16.	Anode B (Digit 3)	Cathode B (Digit 3)	Anode E (Digit 4)	Cathode E (Digit 4)
17.	Anode A (Digit 3)	Cathode A (Digit 3)	Anode D (Digit 4)	Cathode D (Digit 4)
18.	Common Cathode (Digit 3)	Common Anode (Digit 3)	Common Cathode (Digit 4)	Common Anode (Digit 4)
19.	Anode F (Digit 3)	Cathode F (Digit 3)	Anode C (Digit 4)	Cathode C (Digit 4)
20.	Anode G (Digit 3)	Cathode G (Digit 3)	Anode D.P.(Digit 4)	Cathode D.P. (Digit 4)
21.	Anode B (Digit 2)	Cathode B (Digit 2)	Anode B (Digit 4)	Cathode B (Digit 4)
22.	Anode A (Digit 2)	Cathode A (Digit 2)	Anode A (Digit 4)	Cathode A (Digit 4)
23.	Common Cathode (Digit 2)	Common Anode (Digit 2)	Common Cathode (Digit 4)	Common Anode (Digit 4)
24.	Anode F (Digit 2)	Cathode F (Digit 2)	Anode F (Digit 4)	Cathode F (Digit 4)
25.	Anode G (Digit 2)	Cathode G (Digit 2)	Anode G (Digit 4)	Cathode G (Digit 4)
26.	Anode B (Digit 1)	Cathode B (Digit 1)	Anode B (Digit 3)	Cathode B (Digit 3)
27.	Anode A (Digit 1)	Cathode A (Digit 1)	Anode A (Digit 3)	Cathode A (Digit 3)
28.	Common Cathode (Digit 1)	Common Anode (Digit 1)	Common Cathode (Digit 3)	Common Anode (Digit 3)
29.	Anode F (Digit 1)	Cathode F (Digit 1)	Anode F (Digit 3)	Cathode F (Digit 3)
30.	Anode G (Digit 1)	Cathode G (Digit 1)	Anode G (Digit 3)	Cathode G (Digit 3)
31.	-	-	Anode B (Digit 2)	Cathode B (Digit 2)
32.	-	-	Anode A (Digit 2)	Cathode A (Digit 2)
33.	-	-	Common Cathode (Digit 2)	Common Anode (Digit 2)
34.	-	-	Anode F (Digit 2)	Cathode F (Digit 2)
35.	-	-	Anode G (Digit 2)	Cathode G (Digit 2)
36.	-	-	Anode B (Digit 1)	Cathode B (Digit 1)
37.	-	-	Anode A (Digit 1)	Cathode A (Digit 1)
38.	-	-	Common Cathode (Digit 1)	Common Anode (Digit 1)
39.	-	-	Anode F (Digit 1)	Cathode F (Digit 1)
40.	-	-	Anode G (Digit 1)	Cathode G (Digit 1)

## Internal Circuit Diagrams

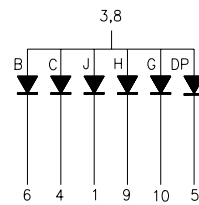
A.LTS-546A



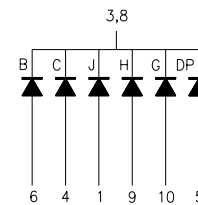
B.LTS-547A



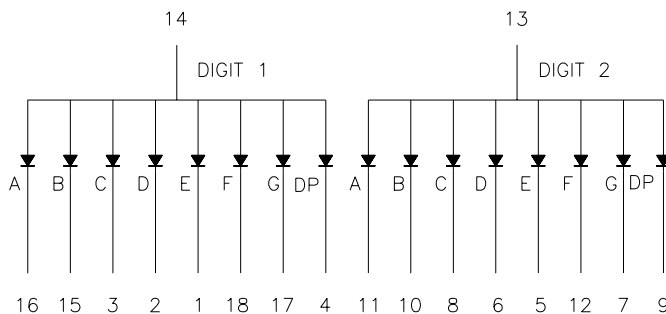
C.LTS-548A



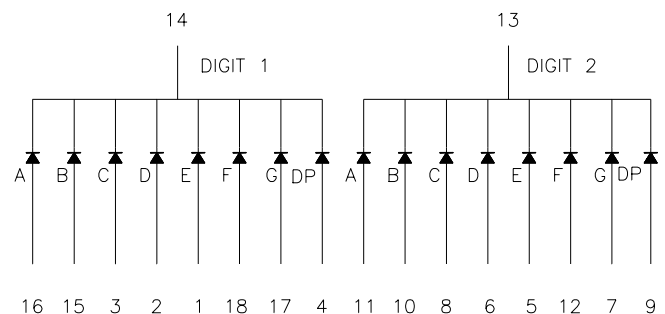
D.LTS-549A

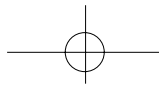


E.LTD-5250



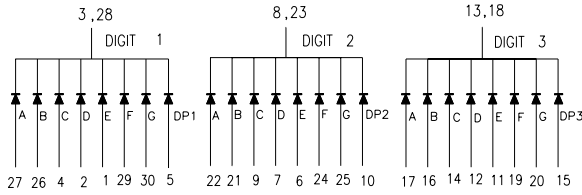
F.LTD-5260



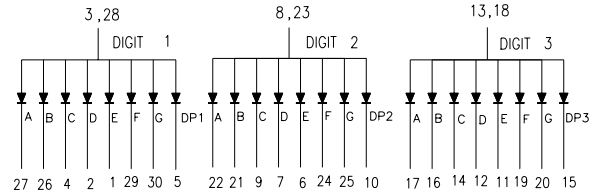


**DISPLAYS**

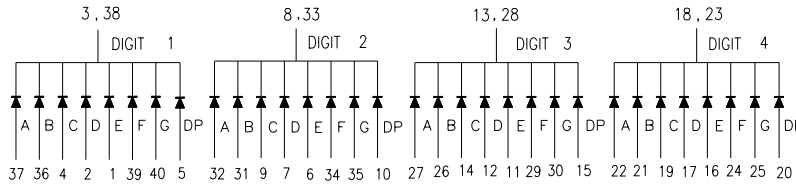
**G.LTC-5336**



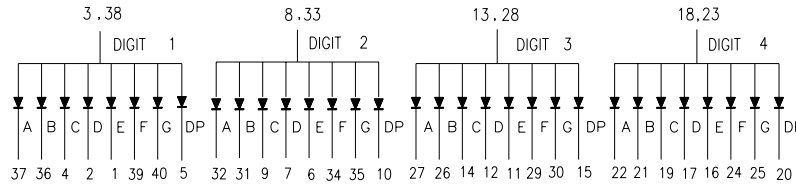
**H.LTC-5836**



**I.LTC-5337**



**J.LTC-5837**



**Absolute Maximum Rating at Ta=25°C**

Parameter	AlGaAs Red	Bright Red	Green	Yellow	Red Orange	Hi.-Eff. Red	Unit
Power Dissipation Per Segment	75	40	75	60	75	75	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	125	60	100	80	100	100	mA
Continuous Forward Current Per Segment Derating Linear from 25°C Per Segment	30	15	25	20	25	25	mA
Reverse Voltage Per Segment	0.4	0.2	0.33	0.27	0.33	0.33	mA/°C
Reverse Voltage Per Segment	5	5	5	5	5	5	V
Operating Temperature Range	-35°C to +85°C						
Storage Temperature Range	-35°C to +85°C						
Solder Temperature 1/16 Inch Below Seating Plane for 3 Seconds at 260°C							

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

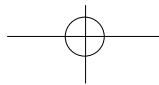
LTS-546AWC/547AWC/548AWC/549AWC

LTD-5250WC/5260WC

LTC-5336WC/5836WC/5337WC/5837WC

Parameter	Symbol	Min.	Typ.	Max.	Unit	Tset Condition
Average Luminous Intensity	I <sub>v</sub>	320	700		μ cd	I <sub>F</sub> =1mA
			3750			I <sub>F</sub> =5mA
Peak Emission Wavelength	λ <sub>P</sub>		660		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		35		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>		638		nm	I <sub>F</sub> =20mA
Forward Voltage, Per Segment	V <sub>F</sub>		1.6	2.4	V	I <sub>F</sub> =1mA
			1.7			I <sub>F</sub> =5mA
			1.8			I <sub>F</sub> =20mA
Reverse Current, Per Segment	I <sub>R</sub>			100	μ A	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio	I <sub>v</sub> -m			2:1		I <sub>F</sub> =1mA

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LTS-546AP/547AP/548AP/549AP/LTD-5250P/5260P/LTC-5336P/5836P/5337P/5837P

Parameter	Symbol	Min.	Typ.	Max.	Unit	Tset Condition
Average Luminous Intensity	$I_v$	320	800		$\mu$ cd	$I_F=10\text{mA}$
Peak Emission Wavelength	$\lambda_P$		697		nm	$I_F=20\text{mA}$
Spectral Line Half-Width	$\Delta\lambda$		90		nm	$I_F=20\text{mA}$
Dominant Wavelength	$\lambda_d$		657		nm	$I_F=20\text{mA}$
Forward Voltage, Per Segment or D.P.	$V_F$		2.1	2.6	V	$I_F=20\text{mA}$
Reverse Current, Per Segment or D.P.	$I_R$			100	$\mu$ A	$V_R=5\text{V}$
Luminous Intensity Matching Ratio	$I_{v-m}$			2:1		$I_F=10\text{mA}$

LTS-546AG/547AG/548AG/549AG/LTD-5250G/5260G/LTC-5336G/5836G/5337G/5837G

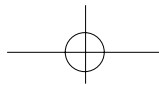
Parameter	Symbol	Min.	Typ.	Max.	Unit	Tset Condition
Average Luminous Intensity	$I_v$	800	2200		$\mu$ cd	$I_F=10\text{mA}$
Peak Emission Wavelength	$\lambda_P$		565		nm	$I_F=20\text{mA}$
Spectral Line Half-Width	$\Delta\lambda$		30		nm	$I_F=20\text{mA}$
Dominant Wavelength	$\lambda_d$		569		nm	$I_F=20\text{mA}$
Forward Voltage, Per Segment or D.P.	$V_F$		2.1	2.6	V	$I_F=20\text{mA}$
Reverse Current, Per Segment or D.P.	$I_R$			100	$\mu$ A	$V_R=5\text{V}$
Luminous Intensity Matching Ratio	$I_{v-m}$			2:1		$I_F=10\text{mA}$

LTS-546AY/547AY/548AY/549AY/LTD-5250Y/5260Y/LTC-5336Y/5836Y/5337Y/5837Y

Parameter	Symbol	Min.	Typ.	Max.	Unit	Tset Condition
Average Luminous Intensity	$I_v$	800	2200		$\mu$ cd	$I_F=10\text{mA}$
Peak Emission Wavelength	$\lambda_P$		585		nm	$I_F=20\text{mA}$
Spectral Line Half-Width	$\Delta\lambda$		35		nm	$I_F=20\text{mA}$
Dominant Wavelength	$\lambda_d$		588		nm	$I_F=20\text{mA}$
Forward Voltage, Per Segment or D.P.	$V_F$		2.1	2.6	V	$I_F=20\text{mA}$
Reverse Current, Per Segment or D.P.	$I_R$			100	$\mu$ A	$V_R=5\text{V}$
Luminous Intensity Matching Ratio	$I_{v-m}$			2:1		$I_F=10\text{mA}$

LTS-546AE/547AE/548AE/549AE/LTD-5250E/5260E/LTC-5336E/5836E/5337E/5837E

Parameter	Symbol	Min.	Typ.	Max.	Unit	Tset Condition
Average Luminous Intensity	$I_v$	800	2200		$\mu$ cd	$I_F=10\text{mA}$
Peak Emission Wavelength	$\lambda_P$		630		nm	$I_F=20\text{mA}$
Spectral Line Half-Width	$\Delta\lambda$		40		nm	$I_F=20\text{mA}$
Dominant Wavelength	$\lambda_d$		621		nm	$I_F=20\text{mA}$
Forward Voltage, Per Segment or D.P.	$V_F$		2.0	2.6	V	$I_F=20\text{mA}$
Reverse Current, Per Segment or D.P.	$I_R$			100	$\mu$ A	$V_R=5\text{V}$
Luminous Intensity Matching Ratio	$I_{v-m}$			2:1		$I_F=10\text{mA}$



LTS-546AHR/547AHR/548AHR/549AHR/LTD-5250HR/5260HR/LTC-5336HR/5836HR/5337HR/5837HR

Parameter	Symbol	Min.	Typ.	Max.	Unit	Tset Condition
Average Luminous Intensity	$I_v$	800	2200		$\mu$ cd	$I_F=10\text{mA}$
Peak Emission Wavelength	$\lambda_P$		635		nm	$I_F=20\text{mA}$
Spectral Line Half-Width	$\Delta\lambda$		40		nm	$I_F=20\text{mA}$
Dominant Wavelength	$\lambda_d$		623		nm	$I_F=20\text{mA}$
Forward Voltage, Per Segment or D.P.	$V_F$		2.0	2.6	V	$I_F=20\text{mA}$
Reverse Current, Per Segment or D.P.	$I_R$			100	$\mu$ A	$V_R=5\text{V}$
Luminous Intensity Matching Ratio	$I_v\text{-m}$			2:1		$I_F=10\text{mA}$

Note : Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage)eye-response curve.

### Typical Electrical/Optical Characteristic Curves (25°C Ambient Temperature Unless Otherwise Noted)

DISPLAYS

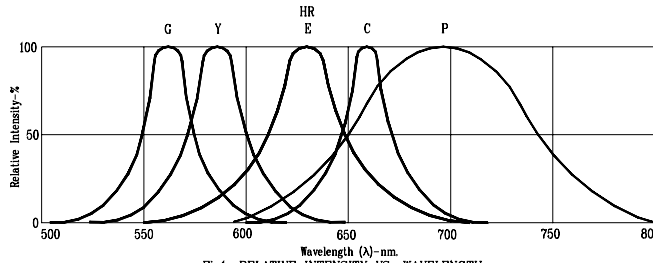


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

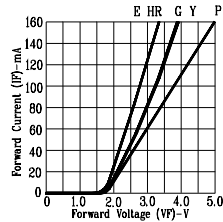


Fig2. FORWARD CURRENT VS. FORWARD VOLTAGE

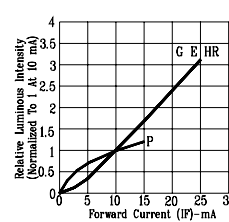


Fig3. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

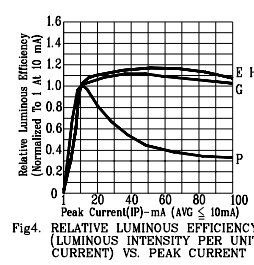


Fig4. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT

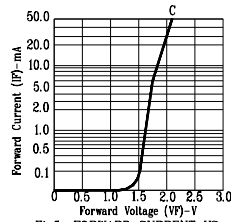


Fig5. FORWARD CURRENT VS. FORWARD VOLTAGE

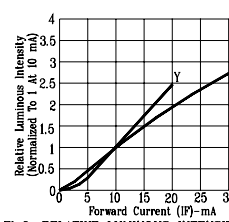


Fig6. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

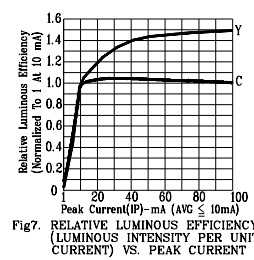


Fig7. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT

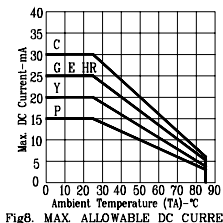


Fig8. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

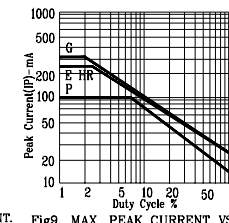


Fig9. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

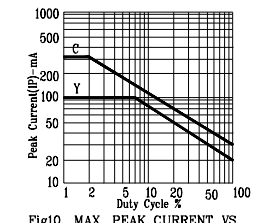


Fig10. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: G=GREEN Y=YELLOW HR=Hi-Eff. RED E=RED ORANGE C=AlGaAs RED P=BRIGHT RED (REFRESH RATE 1KHz)

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[www.DatasheetCatalog.com](http://www.DatasheetCatalog.com)

Datasheets for electronic components.