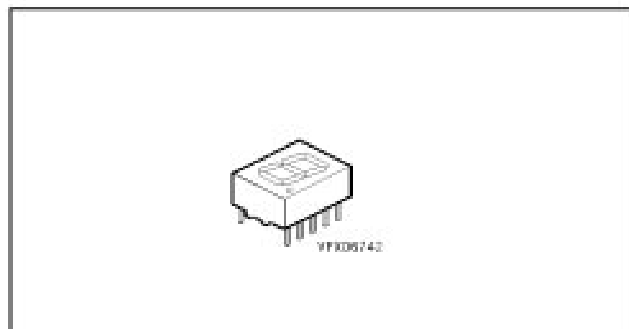


Seven Segment Display 10 mm (0.39")

HD 1105
HD 1107

Features

- Excellent readability by ambient light
- Excellent character appearance
- Evenly lighted segments
- Wide viewing angle $2\varphi = 50^\circ$
- Mitred corners on segments
- Grey package provides optimum contrast
- IC-compatible
- Right hand decimal



Type	Polarity	Color of emission	Luminous intensity/ Segment $I_F = 10 \text{ mA}$ $I_V (\mu\text{cd})$	Ordering code
HD 1105 R	common anode	red	550 (typ.)	Q68000-A5741
HD 1105 O		super-red	3500 (typ.)	Q68000-A5766
HD 1105 G		green	4000 (typ.)	Q68000-A6350
HD 1107 R	common cathode	red	550 (typ.)	Q68000-A5743
HD 1107 O		super-red	3500 (typ.)	Q68000-A5772
HD 1107 G		green	4000 (typ.)	Q68000-A6352

Maximum Ratings ($T_A = 25\text{ °C}$)

Description	Symbol	Value	Unit
Operating temperature range	T_{op}	0 ... + 85	°C
Storage temperature range	T_{stg}	- 40 ... + 85	°C
Lead soldering temperature, 2 mm from base	T_S	260	°C for 3 s
Peak forward current per segment or DP ¹⁾ $t_P \leq 10\ \mu\text{s}$ HD 110* R HD 110* O, -G	I_{FM} I_{FM}	500 150	mA mA
DC forward current per segment or DP ²⁾ HD 110* R HD 110* O, -G	I_F I_F	30 20	mA mA
Reverse voltage per segment or DP	V_R	6	V
Total power dissipation $T_A \leq 45\text{ °C}$	P_{tot}	480	mW

1) Do not exceed maximum average current per segment (see graph of the permissible pulse handling capability)

2) Derate maximum average current above $T_A = 75\text{ °C}$ at 0.5 mA/°C per segment

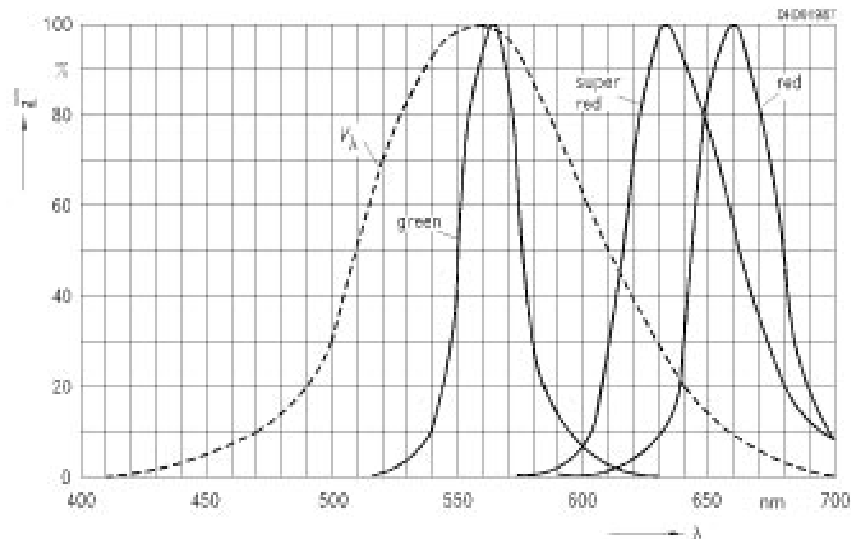
Characteristics ($T_A = 25\text{ °C}$)

Parameter	Symbol	Values			Unit
		min	typ.	ma	
Luminous intensity per segment, $I_F = 10\text{ mA}$ HD 1105 R, HD 1107 R	I_V	180	550	-	μcd
HD 1105 O, HD 1107 O	I_V	1100	3500	-	μcd
HD 1105 G, HD 1107 G	I_V	1100	4000	-	μcd
Peak wavelength, $I_F = 10\text{ mA}$ HD 1105 R, HD 1107 R	λ_{peak}	-	660	-	nm
HD 1105 O, HD 1107 O	λ_{peak}	-	630	-	nm
HD 1105 G, HD 1107 G	λ_{peak}	-	565	-	nm
Dominant wavelength (Digit average) HD 1105 R, HD 1107 R	λ_{dom}	-	645	-	nm
HD 1105 O, HD 1107 O	λ_{dom}	612	-	625	nm
HD 1105 G, HD 1107 G	λ_{dom}	562	-	575	nm
Forward voltage per segment*, $I_F = 20\text{ mA}$ HD 1105 R, HD 1107 R	V_F	-	1.6	2.0	V
HD 1105 O, HD 1107 O	V_F	-	2.0	3.0	V
HD 1105 G, HD 1107 G	V_F	-	2.4	3.0	V
Break down voltage per segment* $I_R = 10\text{ }\mu\text{A}$	V_{BR}	6	15	-	V
Max. thermal resistance	R_{thJA}	-	-	120	$^{\circ}\text{C/W/Seg}$

*) AQL = 0.4%

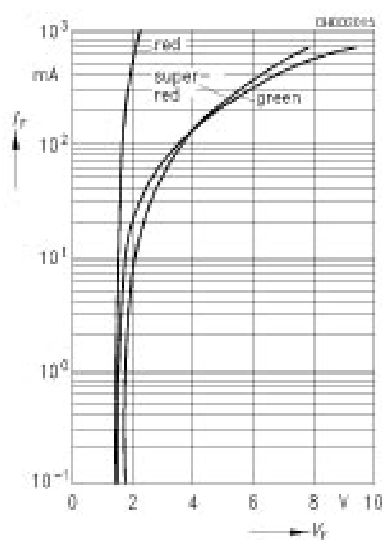
Relative spectral emission $I_{rel} = f(\lambda)$

$V(\lambda)$ = Standard eye response curve



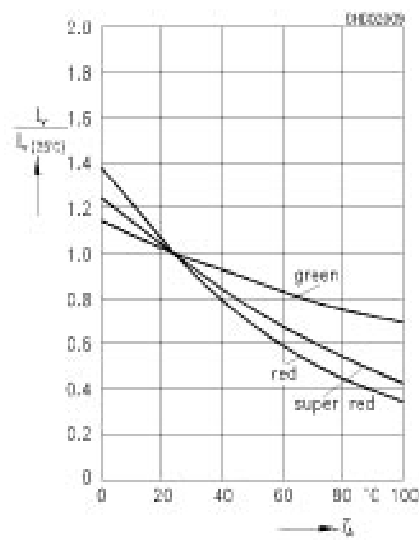
Forward current $I_F = f(V_F)$

$T_A = 25^\circ\text{C}$



Rel. luminous intensity $I_v/I_v(25^\circ\text{C}) = f(T_A)$

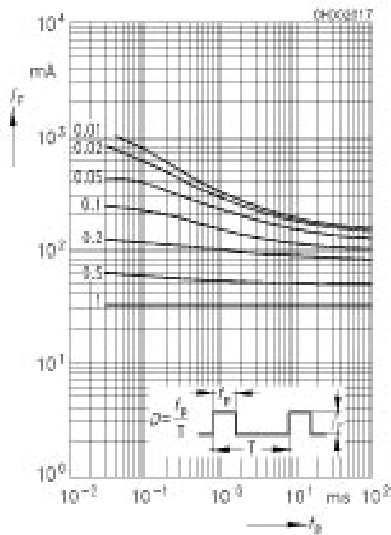
$I_F = 10\text{ mA}$



Permissible pulse handling capability

$$I_F = f(t_p), T_A \leq 45^\circ\text{C}$$

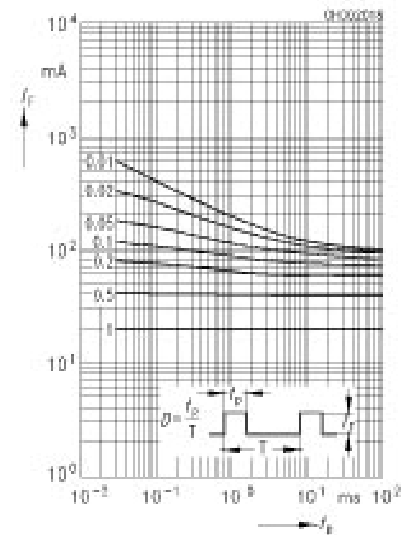
red



Permissible pulse handling capability

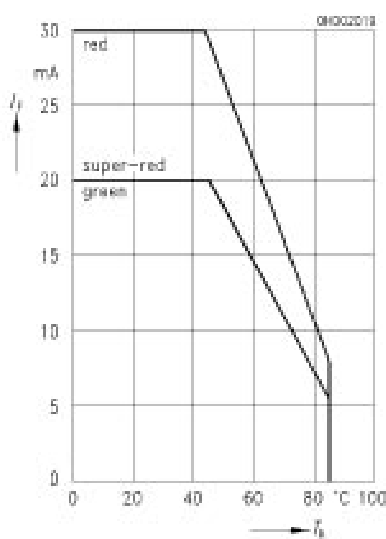
$$I_F = f(t_p), T_A \leq 45^\circ\text{C}$$

super-red, green



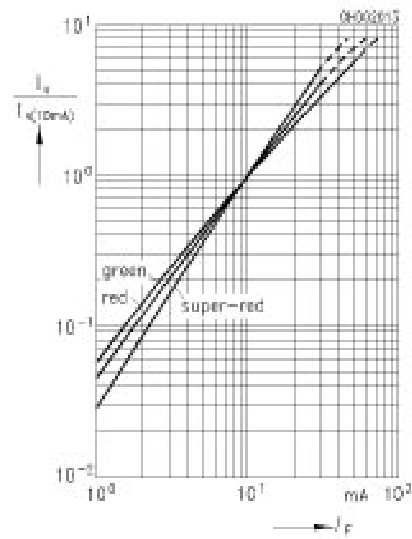
Max. permissible forward current

$$I_F = f(T_A)$$

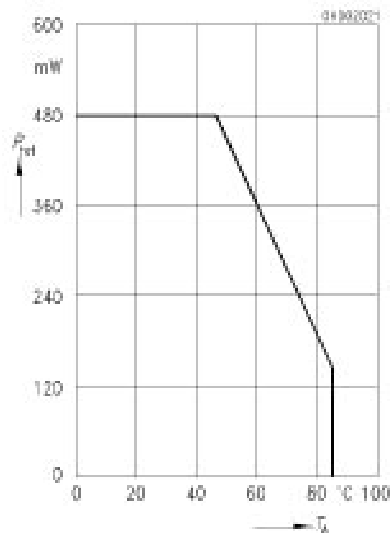


Rel. luminous intensity $I_V/I_V(10\text{ mA}) = f(I_F)$

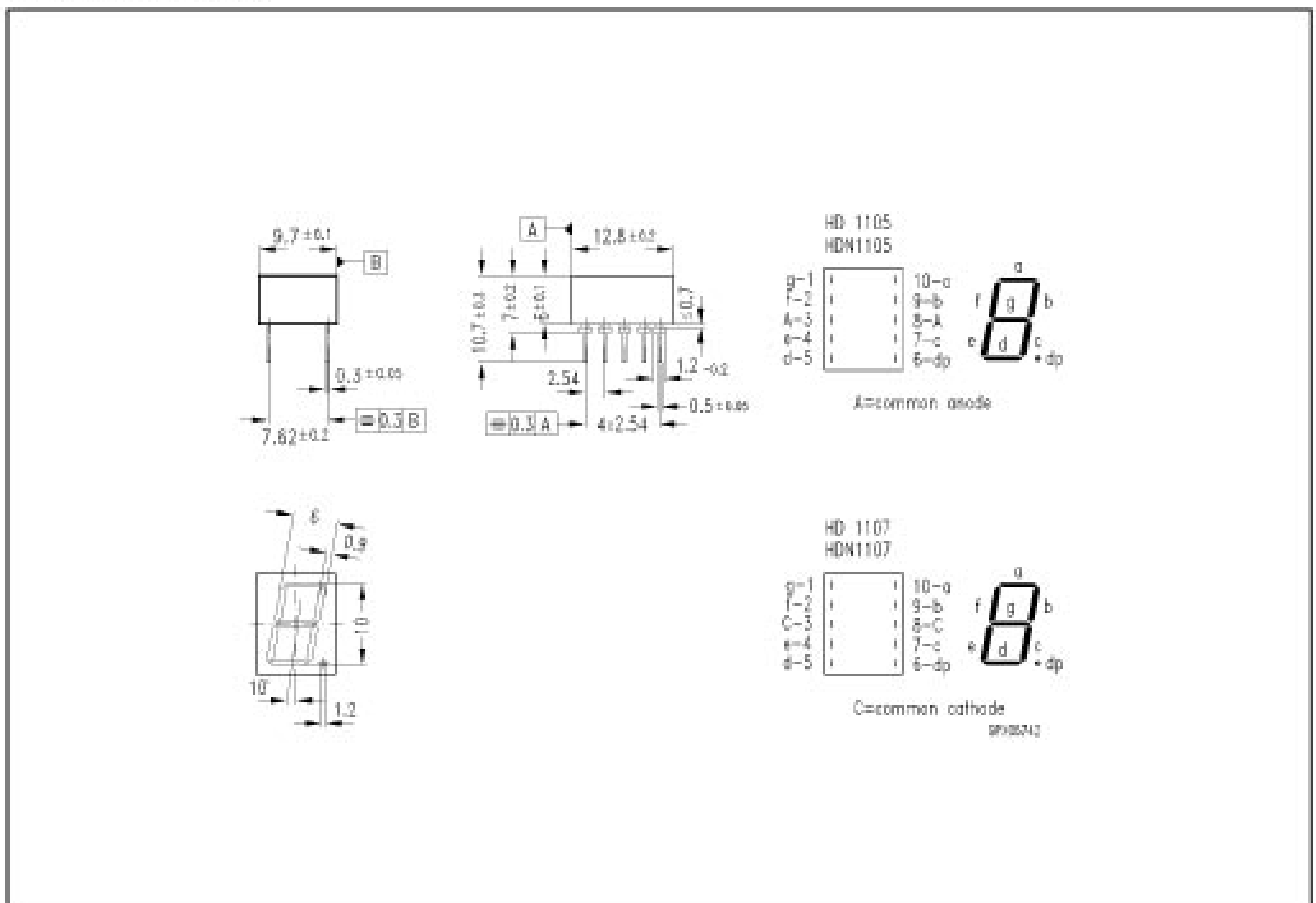
$$T_A = 25^\circ\text{C}$$



Total power dissipation $P_{tot} = f(T_A)$



Package Outlines





LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.