

# ROITHNER LASERTECHNIK

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## RLT7855MG TECHNICAL DATA



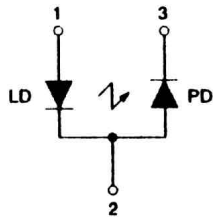
### High Power Infrared Laserdiode

Structure: **GaAlAs double heterostructure**  
 Lasing wavelength: **785 nm typ.**  
 Max. optical power: **55 mW**  
 Package: **5.6 mm MG**

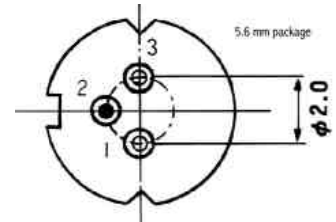
**NOTE!**  
 LASERDIODE  
 MUST BE COOLED!



#### PIN CONNECTION:



- 1) Laser diode anode
- 2) Laser diode cathode and photodiode anode
- 3) Photodiode cathode



#### Absolute Maximum Ratings ( $T_c=25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Optical Output Power	$P_o$	55	mW
LD Reverse Voltage	$V_{R(LD)}$	2	V
PD Reverse Voltage	$V_{R(PD)}$	15	V
Operating Temperature	$T_c$	-10 .. +60	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-40 .. +85	$^\circ\text{C}$

#### Optical-Electrical Characteristics $T_c = 25^\circ\text{C}$ $P_o = 50$ mW

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Threshold Current	$I_{th}$		-	30	50	mA
Operation Current	$I_{op}$	$25^\circ\text{C}$		100	140	mA
Operation Current	$I_{op}$	$60^\circ\text{C}$		120	160	mA
Lasing Wavelength	$\lambda_p$	-	775	785	795	nm
Beam Divergence	$\theta_{//}$	-	7	8,5	9,5	$^\circ$
Beam Divergence	$\theta_{\perp}$	-	18	22	26	$^\circ$
Astigmatism	$A_s$	-		10		$\mu\text{m}$
Diff. Wirkungsgrad	$dP_o/dI_{op}$	-	0,4	0,7	0,9	mW/mA
Monitor Current	$I_m$	-	0,05	0,2	0,5	mA