

**EXCEED**



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## Specification For Approval

**Customer :**

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**Description : LED Display**

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**Part Number : RL-S5023SCBW/D30**

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**Date : 2003-10-13**

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**Approved By:**

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**Prepared By:**

Checked	QC	Designed	Sales

# EXCEED

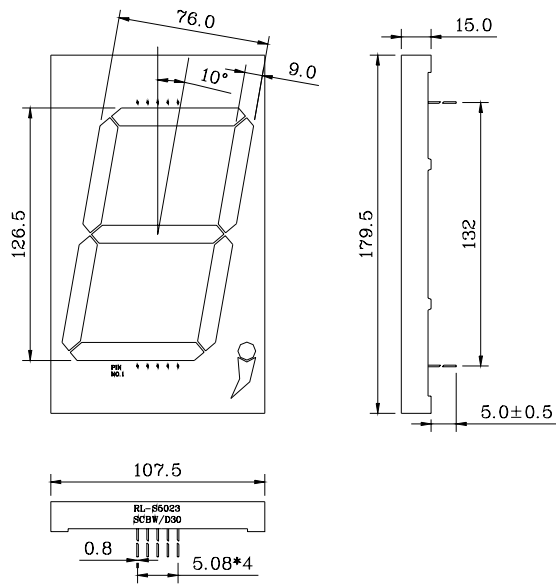
Light Emitting Diode Display



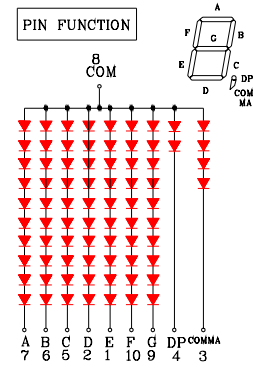
**Part No:RL-S5023SCBW/D30**

**Package Dimensions**

**Unit:mm**



NOTE: TOLERANCE±0.3mm



**Selection Guide**

Part NO.	Chip		LED Display		
	Material	Emitted Color	Surface color	Polarity	Colloid color
RL-S5023 SCBW/D30	GaAlAs/GaAs	Super Red	Black	CA	White

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### Part No:RL-S5023SCBW/D30

#### □ Absolute Maximum Ratings (Ta=25°C)

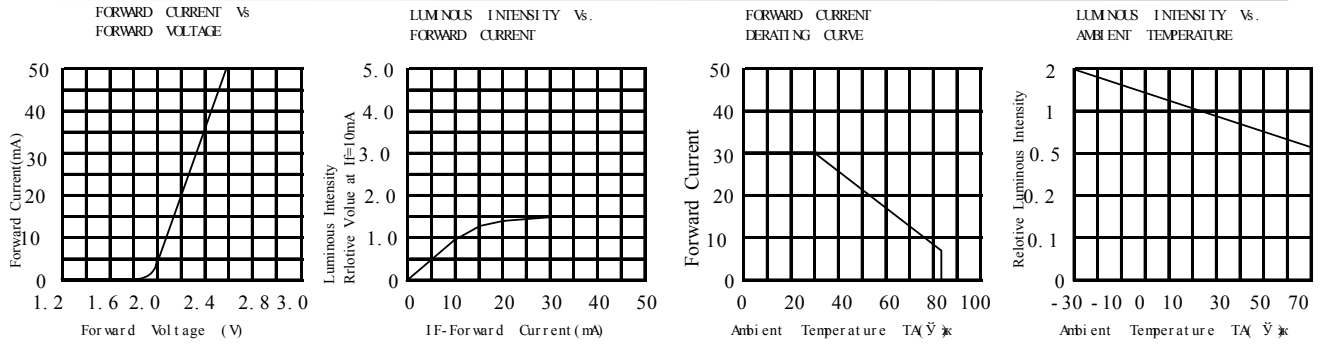
Parameter	Symbol	MAX. Rating	Unit
Power Dissipation	Pd	110	mW
Peak forward current (10µs Pulse)	IFM	100	mA
Reverse Current	IR	100	µA
Continuous Forward Current	IF	20	mA
Operating Temperature	Topr	-40~+85	°C
Storage Temperature	Tstg	-40~+85	°C
Lead Soldering Temperature: 260°C For 5 SEC			

#### □ Electric-Optical Characteristics

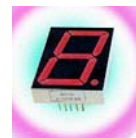
Parameter	Symbol	Test Condition	MIN	TYP	MAX	Unit
Forward Voltage	VF	IF=20mA	15	17	24	V
Reverse Voltage	VR	IR=100µA	5			V
Luminous Intensity	IV	IF=10mA	7840	9530		µcd
Peak Emission Wavelength	λP	IF=20mA		645		nm

#### □ Characteristics Diagrams

# Hi Red(CaP)



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**Products: Led Displays** **Reliability Test**

<b>No</b>	<b>Item</b>	<b>Test Condition</b>	<b>Test Hours/Cycles</b>	<b>Samples Tested</b>	<b>Acc./Rej</b>
<b>1</b>	<b>Room Temperature DC Operating Life</b>	<b>T<sub>a</sub>=25°C, I<sub>F</sub>=20mA</b>	<b>1000 Hrs</b>	<b>76</b>	<b>0/1</b>
<b>2</b>	<b>Thermal Shock</b>	<b>-10°C (5min) → (10 sec) → +100°C (5 min)</b>	<b>100 Cycles</b>	<b>76</b>	<b>0/1</b>
<b>3</b>	<b>Temperature Cycle</b>	<b>-40°C (30min) → (5min) → +85°C (30min)</b>	<b>100 Cycles</b>	<b>76</b>	<b>0/1</b>
<b>4</b>	<b>High Temp./ High Humi. Test</b>	<b>85°C/85%RH</b>	<b>1000 Hrs</b>	<b>76</b>	<b>0/1</b>
<b>5</b>	<b>High Temperature Storage</b>	<b>T<sub>a</sub>=100°C</b>	<b>1000 Hrs</b>	<b>76</b>	<b>0/1</b>
<b>6</b>	<b>Low Temperature Storage</b>	<b>T<sub>a</sub>= - 40°C</b>	<b>1000 Hrs</b>	<b>76</b>	<b>0/1</b>
<b>7</b>	<b>Soldering Heat</b>	<b>260°C ± 5°C</b>	<b>5 Seconds</b>	<b>76</b>	<b>0/1</b>