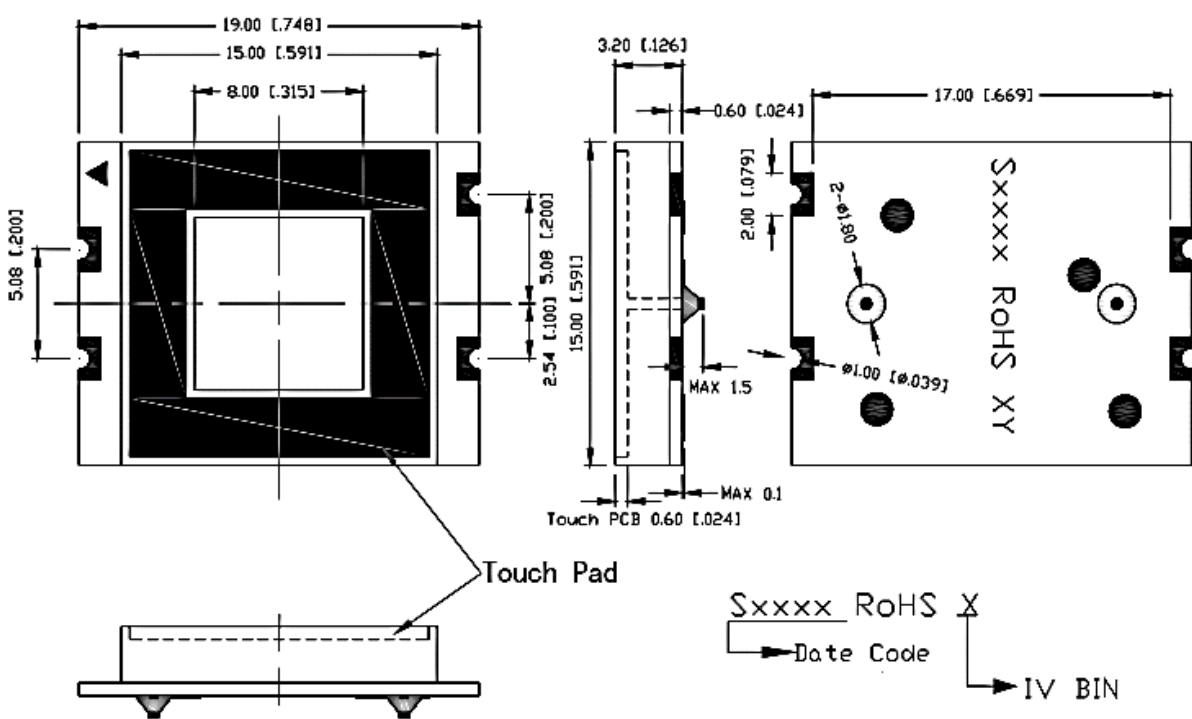


SPECIFICATIONS **STD7559RR2W**

OUTLINES DIMENSIONS



Notes:

1. All Dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Description
STD7559RR2W	InGaAlP	Red	White	Touch Display



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	70	mW
Continuous Forward Current (Per Dice)	IF	25	mA
Peak Current (Per Dice)	IFP	90	mA
Reverse Voltage (Per Dice)	VR	5	V
Operating Temperature Range	TOPR	-35~+85	°C
Storage Temperature Range	TSTG	-35~+85	°C
Hand Soldering Condition: 350 °C/ 3sec			

OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	IV	IF = 20mA	6.7	13	-	mcd
Forward Voltage	VF	IF = 20mA	-	2	2.8	V
Reverse Leakage Current	IR	VR = 5V	-	-	100	µA
Peak Wavelength	λP	IF = 20mA	-	660	-	nm
Dominant Wavelength	λD	IF = 20mA	-	645	-	nm
Spectral Radiation Bandwidth	Δλ	IF = 20mA	-	20	-	nm



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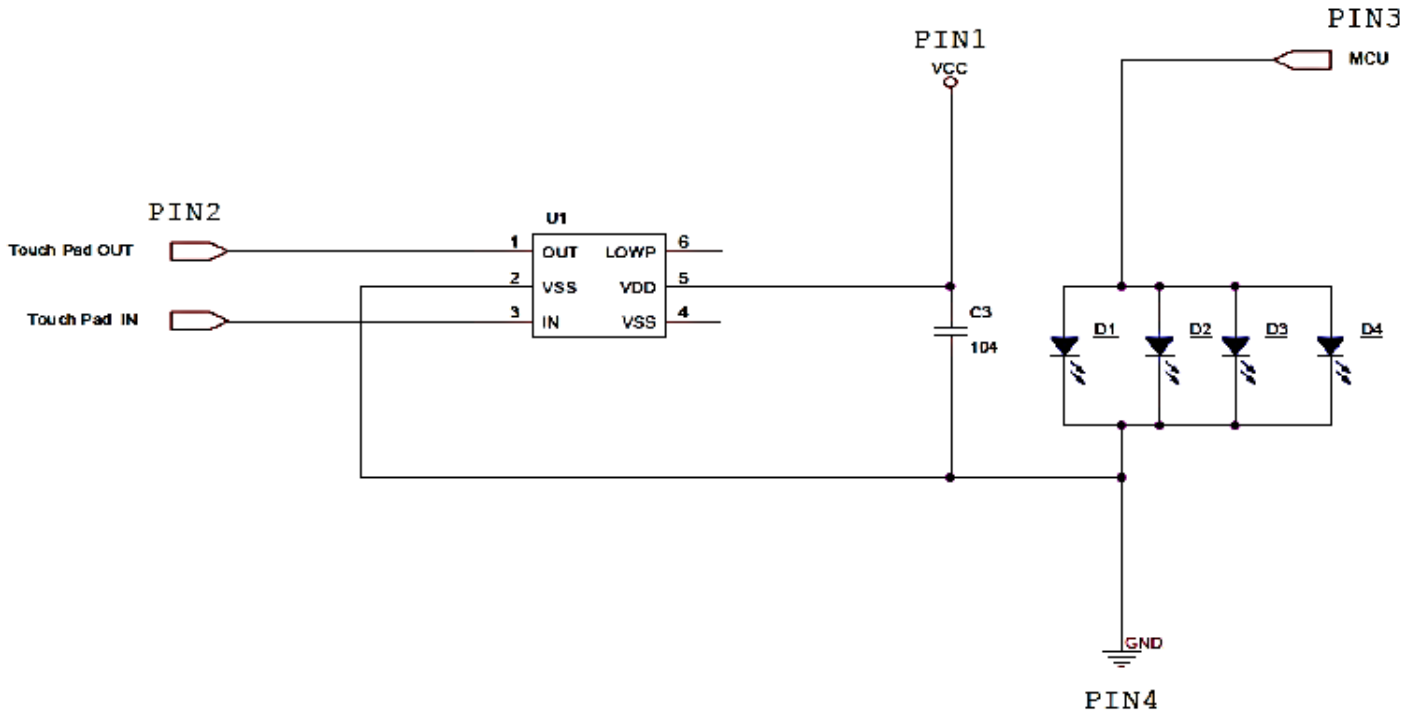
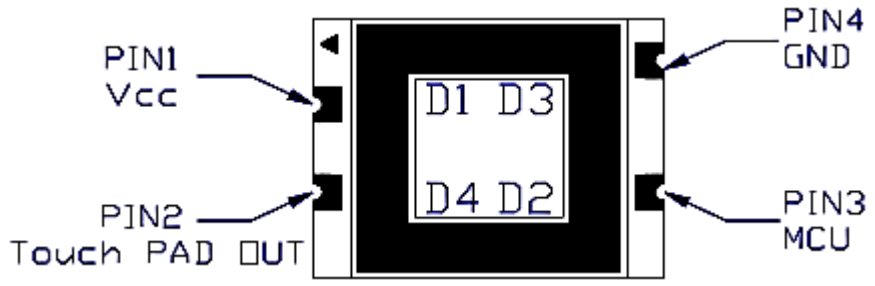
TOUCH IC ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C)

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Supply Voltage	VDD	-	2.0	-	5.5	V
High Level Input Voltage	VIH	VDD = 5V	3.5	-	5.0	V
Low Level Input Voltage	VIL	VDD = 5V	0	-	1.5	V
Operating Current	IDD1	VDD = 5V No Load	-	16	-	μA
		VDD = 3V No Load	-	3.5	-	μA
Operating Current (SLRT = VDD)	IDD2	VDD = 5V No Load	-	10.5	-	μA
		VDD = 3V No Load	-	2.5	-	μA
Low Level Output Current	IOL	VDD = 3V VOL= 1V	-	30	-	mA
High Level Output Current	IOH	VDD = 3V VOL= 2V	-	8	-	mA



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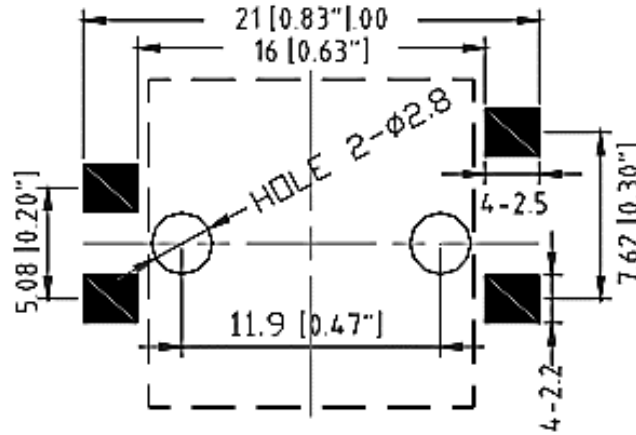
INTERNAL CIRCUIT DIAGRAMS



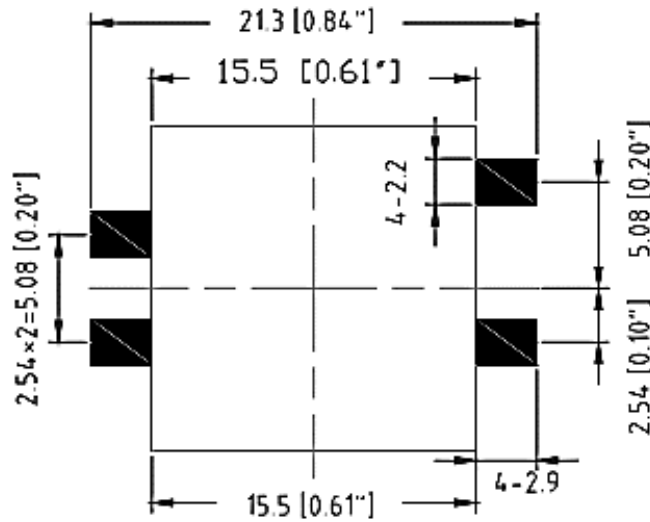
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RECOMMENDED SOLDER PADS

- **Top Mount**



- **Reverse Mount**



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OPTICAL CHARACTERISTIC CURVES

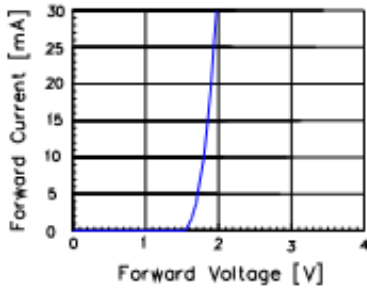


Fig 1. Forward Current vs. Forward Voltage

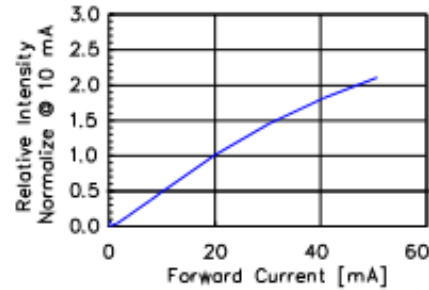


Fig 2. Relative Intensity vs. Forward Current

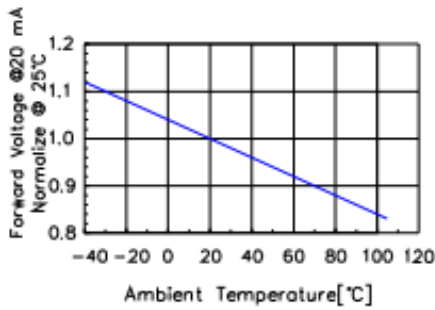


Fig 3. Forward Voltage vs. Temperature

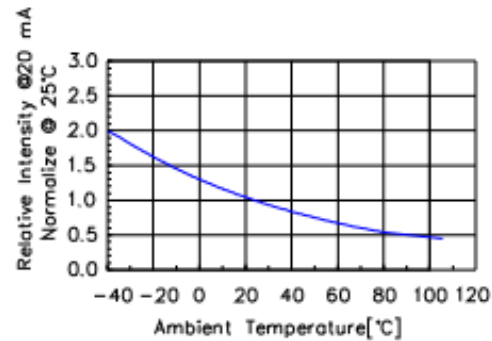


Fig 4. Relative Intensity vs. Temperature

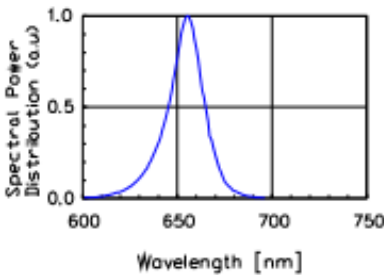


Fig 5. Spectral Power Distribution vs. Wavelength

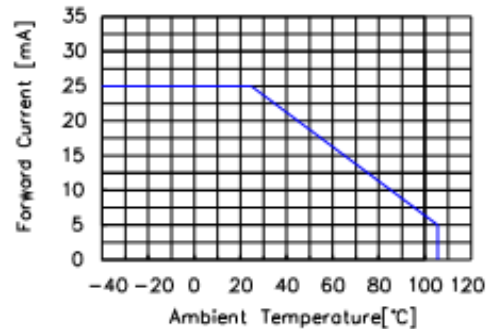


Fig 6. Forward current vs. Temperature

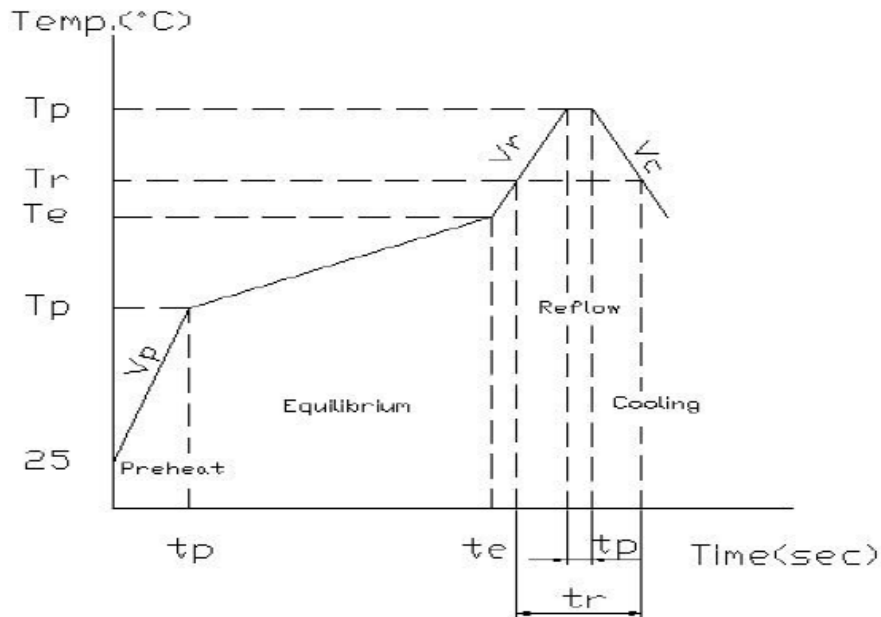


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SOLDERING CHARACTERISTICS

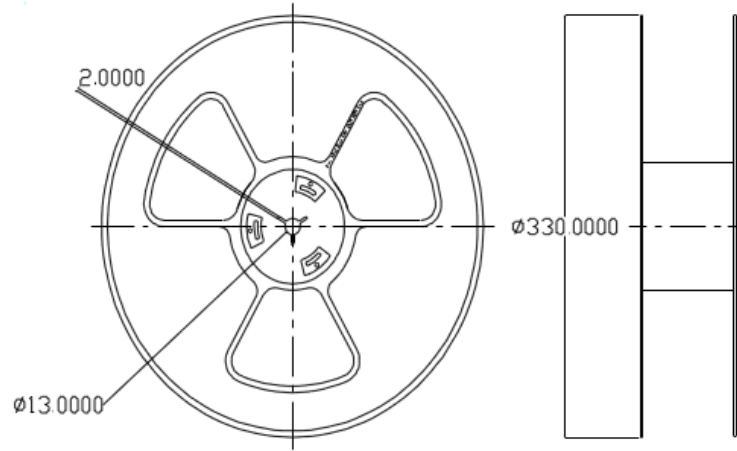
1. IR-reflow Condition (Pb free)

Area	Title	Symbol	Min	Max	Unit
(1)Preheat	Ramp-up Rate	V_P	1	5	$^{\circ}\text{C}/\text{sec}$
	Temperature	T_P	150	--	$^{\circ}\text{C}$
	Time	t_p	--	--	sec
(2)Equilibrium	Ramp-up Rate	V_E	--	--	$^{\circ}\text{C}/\text{sec}$
	Temperature	T_E	150	200	$^{\circ}\text{C}$
	Time	t_e	60	120	sec
(3)Reflow	Ramp-up Rate	V_R	1	5	$^{\circ}\text{C}/\text{sec}$
	Temperature	T_R	220	--	$^{\circ}\text{C}$
	Time	t_r	--	60	sec
	Peak Temperature	T_{RP}	--	260	$^{\circ}\text{C}$
	Peak Time	t_{rp}	--	10	sec
(4)Cooling	Ramp-down Rate	V_c	3	6	$^{\circ}\text{C}/\text{sec}$

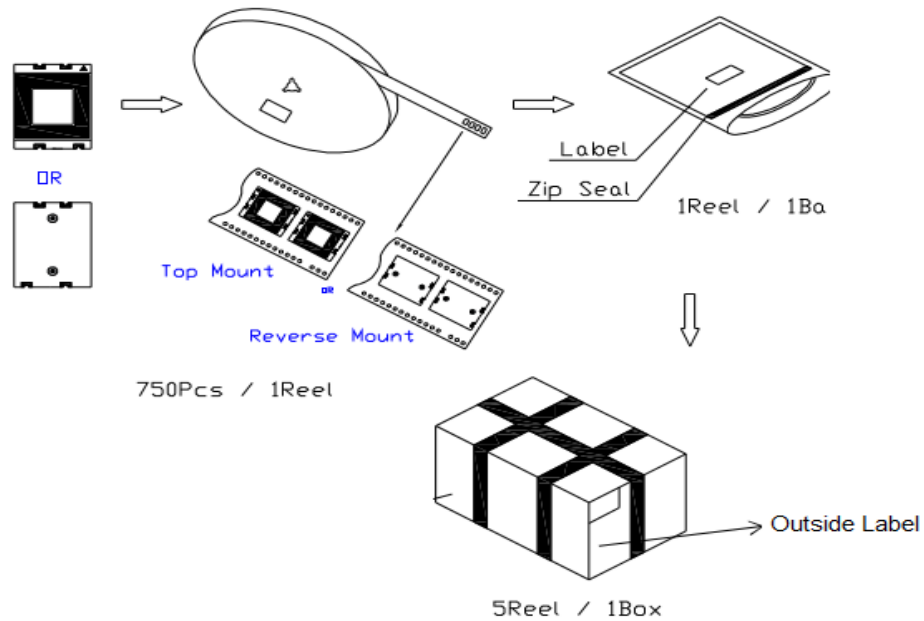


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PACKAGING SPECIFICATIONS



1. 750pcs per reel.



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