Truth Table

LED	V_O
ON	LOW
OFF	HIGH

ELECTRICAL CHARACTERISTICS (T_A = 25°C, unless otherwise specified. Typical Values at T_A = 25°C)

INPUT

Parameter	Symbol	Test Condition	Min	Typ.	Max	Unit
Forward Voltage	V_F	I_F = 10mA		1.15	1.5	V
Reverse Current	I_R	V_R = 5V			10	µA
Terminal Capacitance	C_{IN}	V = 0V, f = 1MHz		33		pF

OUTPUT

Parameter	Symbol	Test Condition	Min	Typ.	Max	Unit
Operating Voltage	V_{CC}		3		15	V
Supply Current	$I_{CC(off)}$	V_{CC} = 5V, I_F = 0mA		1.6	5	mA
High Level Output Current	I_{OH}	I_F = 0mA, V_{CC} = V_O = 15V			100	µA

ELECTRICAL CHARACTERISTICS (T_A = 25°C, unless otherwise specified, Typical Values at T_A = 25°C)

COUPLED

Parameter	Symbol	Test Condition	Min	Typ.	Max	Unit
Supply Current	$I_{CC(on)}$	V_{CC} = 5V, I_F = 10mA		1.6	5	mA
Low Level Output Voltage	V_{OL}	V_{CC} = 5V, I_F = $I_{F(on)}$ (max), R_L = 270Ω			0.4	V
Turn-On Threshold Current	$I_{F(on)}$	V_{CC} = 5V, R_L = 270Ω			1.6	mA
Turn-Off Threshold Current	$I_{F(off)}$	V_{CC} = 5V, R_L = 270Ω		1		mA
Hysteresis Rtio	$I_{F(off)}/I_{F(on)}$	V_{CC} = 5V, R_L = 270Ω	0.5		0.9	
Turn-On Time	$t_{(on)}$	V_{CC} = 5V, I_F = $I_{F(on)}$ (max), R_L = 270Ω			4	µs
Fall Time	t_f			0.1		
Turn-Off Time	$t_{(off)}$				4	
Rise Time	t_r			0.1		

ISOLATION

Parameter	Symbol	Test Condition	Min	Typ.	Max	Unit
Isolation Voltage	V_{ISO}	R.H. = 40% to 60%, t = 1 min, Note 1	5000			V_{RMS}
Input - Output Resistance	R_{I-O}	V_{I-O} = 500VDC R.H. = 40% to 60%	10^{11}			Ω

Note 1 : Measured with input leads shorted together and output leads shorted together.

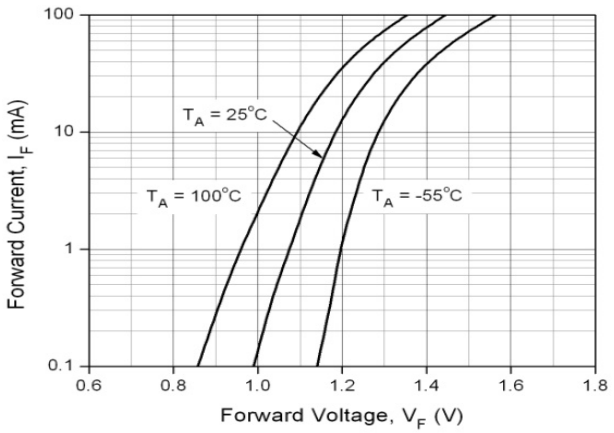


Fig 1 Forward Current vs Forward Voltage

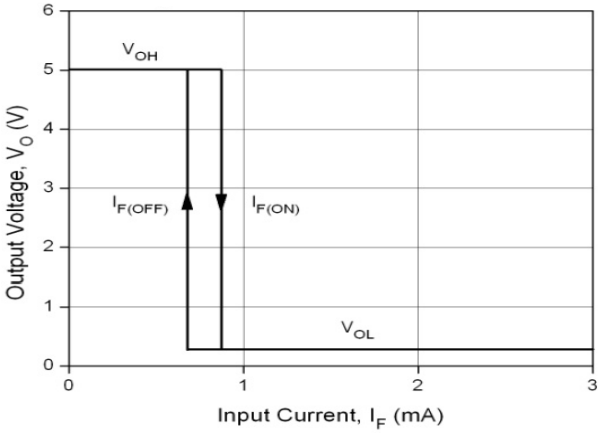


Fig 2 Transfer Characteristics

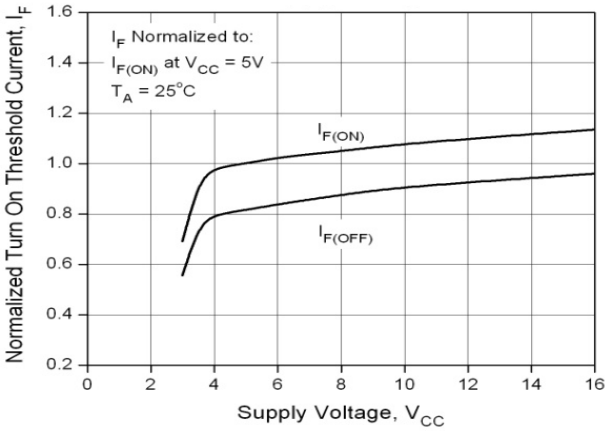


Fig 3 Normalized Turn-On Current vs Supply Voltage

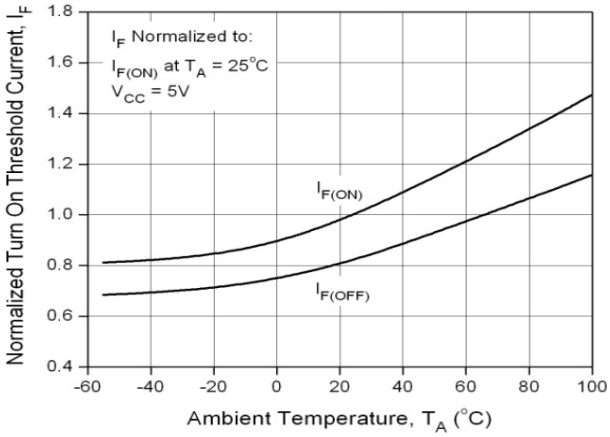


Fig 4 Normalized Turn-On Current vs Ambient temperature

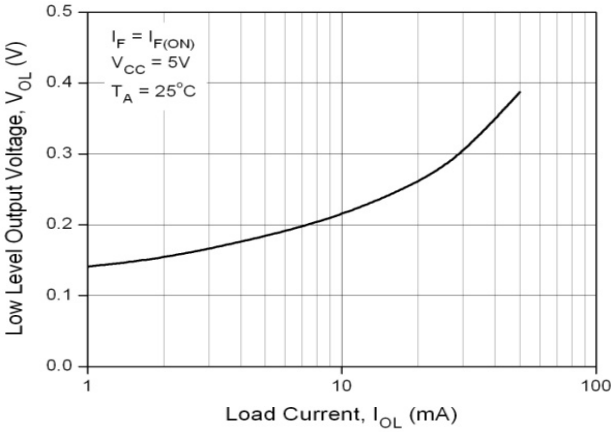


Fig 5 Low Level Output Voltage vs Load Current

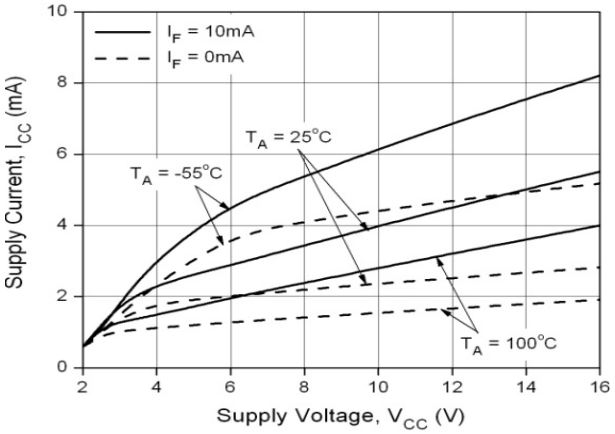
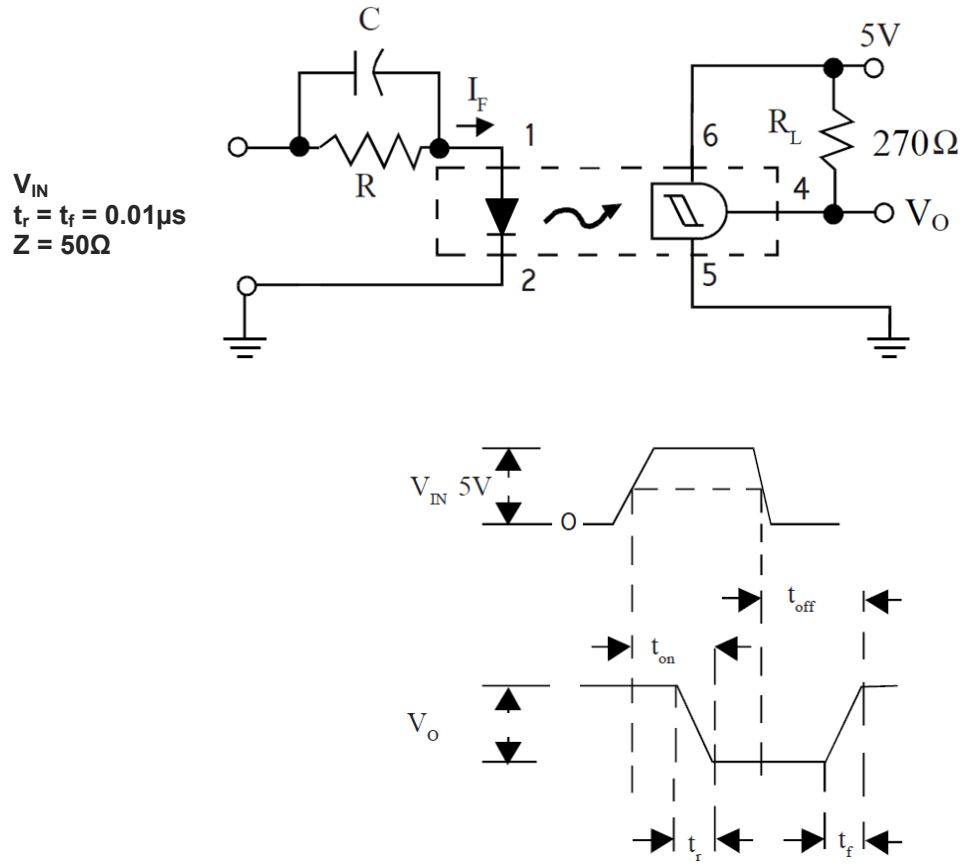


Fig 6 Supply Current vs Supply Voltage



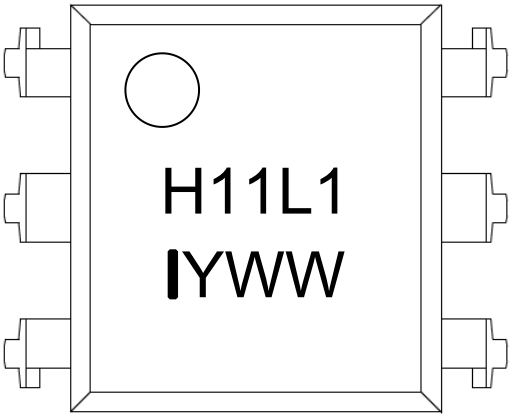
Switching Time Test Circuit and Waveform

ORDER INFORMATION

H11L1 (UL Approval)			
After PN	**PN**	**Description**	**Packing quantity**
None	H11L1	Standard DIP6	65 pcs per tube
G	H11L1G	10mm Lead Spacing	65 pcs per tube
SM	H11L1SM	Surface Mount	65 pcs per tube
SMT&R	H11L1SMT&R	Surface Mount Tape & Reel	1000 pcs per reel

H11L1V (UL Approval and VDE Approvals)			
After PN	**PN**	**Description**	**Packing quantity**
None	H11L1V	Standard DIP6	65 pcs per tube
G	H11L1VG	10mm Lead Spacing	65 pcs per tube
SM	H11L1VSM	Surface Mount	65 pcs per tube
SMT&R	H11L1VSMT&R	Surface Mount Tape & Reel	1000 pcs per reel

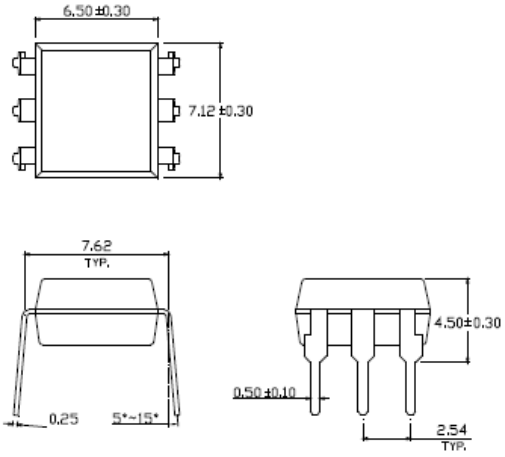
DEVICE MARKING



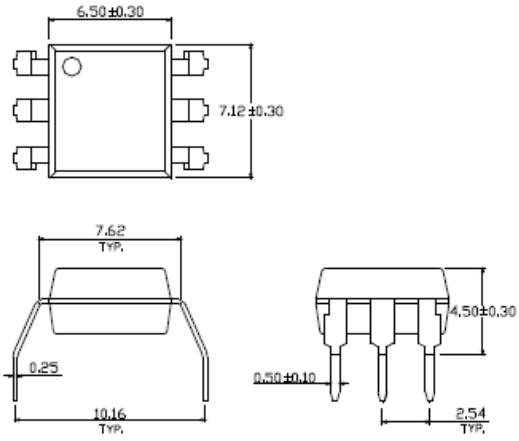
H11L1	denotes Device Part Number (H11L1 as example)
I	denotes Isocom
Y	denotes 1 digit Year code
WW	denotes 2 digit Week code

PACKAGE DIMENSIONS in mm (inch)

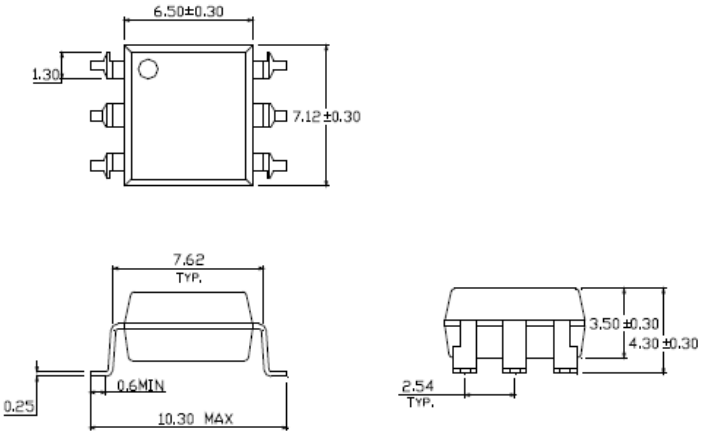
DIP



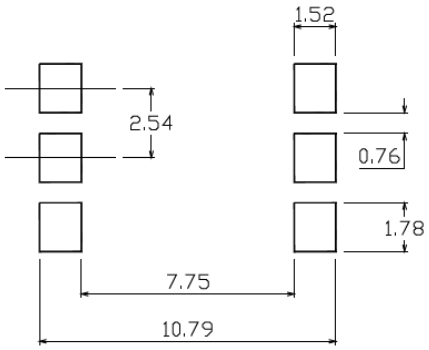
G Form



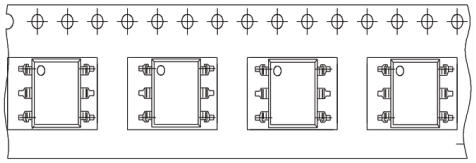
SMD



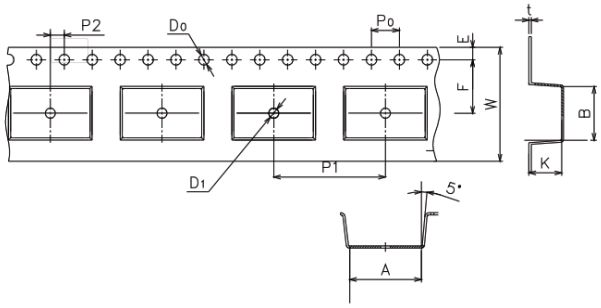
RECOMMENDED PAD LAYPUT FOR SMD (mm)



TAPE AND REEL PACKAGING

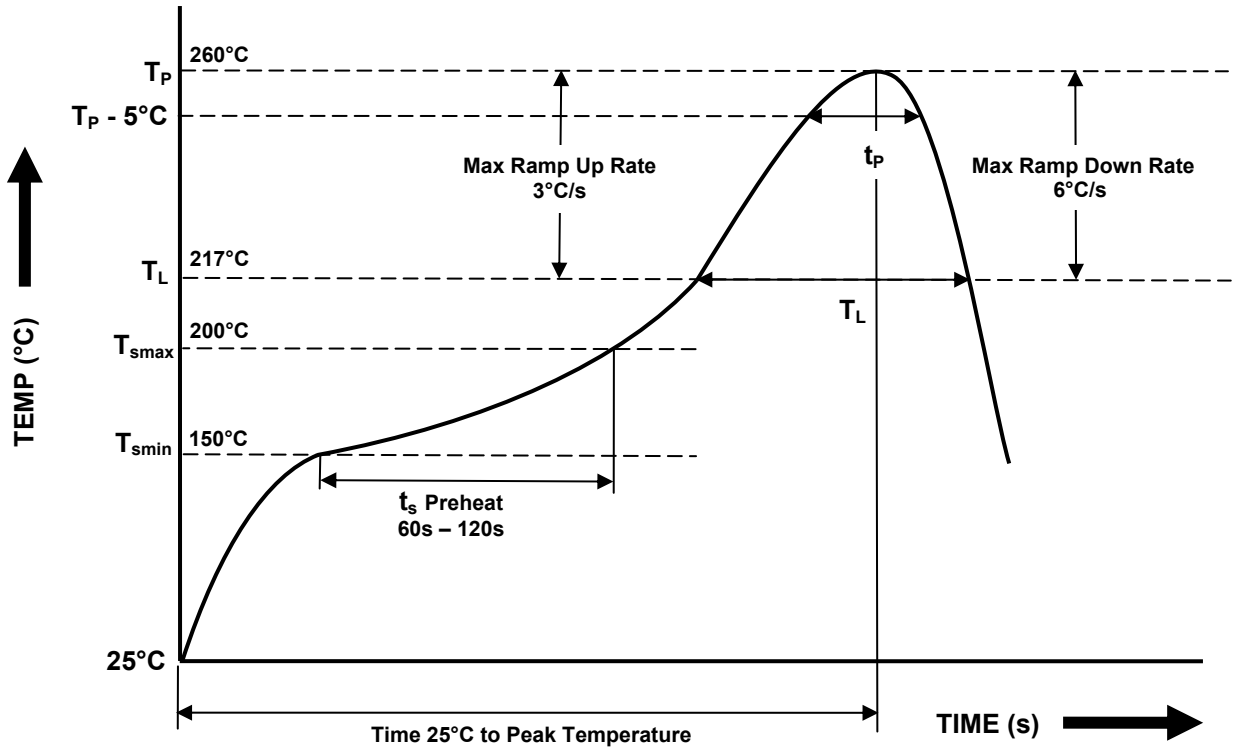


Direction of feed from reel



Dimension No.	A	B	Do	D1	E	F
Dimension(mm)	10.4±0.1	7.5±0.1	1.5±0.1	1.5+0.1/-0	1.75±0.1	7.5±0.1
Dimension No.	Po	P1	P2	t	W	K
Dimension (mm)	4.0±0.15	12.0±0.1	2.0±0.1	0.35±0.03	16.0±0.2	4.5±0.1

IR REFLOW SOLDERING TEMPERATURE PROFILE
(One Time Reflow Soldering is Recommended)



Profile Details	Conditions
Preheat - Min Temperature (T_{SMIN}) - Max Temperature (T_{SMAX}) - Time T_{SMIN} to T_{SMAX} (t_s)	 150°C 200°C 60s - 120s
Soldering Zone - Peak Temperature (T_P) - Time at Peak Temperature - Liquidous Temperature (T_L) - Time within 5°C of Actual Peak Temperature (T_P – 5°C) - Time maintained above T_L (t_L) - Ramp Up Rate (T_L to T_P) - Ramp Down Rate (T_P to T_L)	 260°C 10s max 217°C 30s max 60s - 100s 3°C/s max 6°C/s max
Average Ramp Up Rate (T_{smax} to T_P)	3°C/s max
Time 25°C to Peak Temperature	8 minutes max

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- The contents described herein are subject to change without prior notice.

- Do not immerse device body in solder paste.

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COMPONENTS

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