

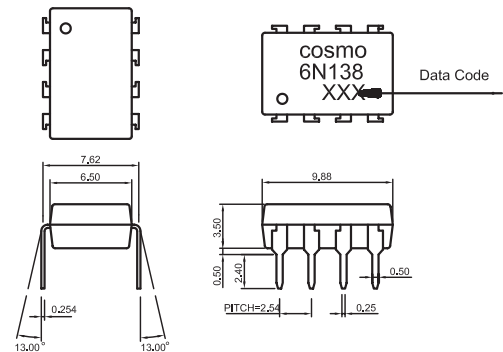
Features

1. High current transfer ratio
(CTR:MIN.300% at $I_F=1.6mA$)
2. High speed response
(t_{PHL} .TYP.2us at $R=2.2k\Omega$)
3. Instantaneous common mode rejection voltage (CM_H .TYP500V/us)
4. TTL compatible output
5. Overseas standard model

Applications

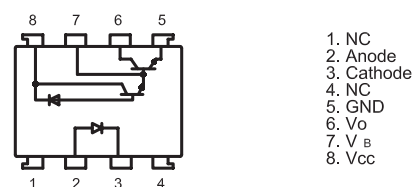
1. Interfaces for computer peripherals
2. Electronic calculators, measuring instruments, control equipment
3. Telephone sets.
4. Signal transmission between circuits of different potentials and impedances.

Outside Dimension:Unit (mm)



Tolerance:±0.2 mm

Schematic:Top View



Absolute Maximum Ratings

($T_a=25^\circ C$)

	Parameter	Symbol	Rating	Unit
Input	Forward current	I_F	20	mA
	*1 Peak forward current	I_F	40	mA
	*2 Peak transient forward current	I_{FM}	1	A
	Reverse voltage	V_R	5	V
	Power dissipation	P	35	mW
Output	Supply voltage	V_{cc}	-0.5 to 7	V
	Output voltage	V_o	-0.5 to 7	V
	Emitter-base reverse withstand voltage (Pin 5 to 7)	V_{EBO}	0.5	V
	*3 Average output current	I_o	60	mA
	Power dissipation	P_o	100	mW
	*4 Isolation voltage	V_{iso}	2500	Vrms
	Operating temperature	T_{opr}	0 to +70	$^\circ C$
	Storage temperature	T_{stg}	-55 to +125	$^\circ C$
	*5 Soldering temperature	T_{sol}	260	$^\circ C$

*1 50% duty cycle, Pulse width : 1ms

*2 Pulse width $\leq 1\mu s$, 300pps

*3 Decreases at the rate of $0.7mA/^\circ C$ if the external temperature is $25^\circ C$ or more.

*4 40 to 60% RH, AC for 1 minute

*5 For 10 seconds

Electro-optical Characteristics

(Ta=0 to +70°C unless otherwise specified)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
*6 Current transfer ratio	CTR	I _F =1.6mA, V _o =0.4V, V _{cc} =4.5V	300	1600	-	%
Logic (0) output voltage	V _{OL}	I _F =1.6mA, I _o =4.8mA, V _{cc} =4.5V	-	0.1	0.4	V
Logic (1) output current	I _{OH}	I _F =0, V _{cc} =V _o =7V	-	0.1	250	uA
Logic (0) supply current	I _{CCL}	I _F =1.6mA, V _{cc} =5V, V _o =open	-	0.5	-	mA
Logic (1) supply current	I _{CCH}	I _F =0, V _{cc} =5V, V _o =open	-	10	-	nA
Input forward voltage	V _F	I _F =1.6mA, Ta=25°C	-	1.5	1.7	V
Input forward voltage temperature coefficient	ΔV _F /ΔTa	I _F =1.6mA	-	-1.9	-	mV/°C
Input reverse voltage	BV _R	I _R =10uA, Ta=25°C	5.0	-	-	V
Input capacitance	C _{IN}	V _F =0, f=1MHz	-	60	-	pF
*7 Leak current(input-output)	I _{I-O}	V _{I-O} =3kV DC, 45%RH, t=5s, Ta=25°C	-	-	1.0	uA
*7 Isolation resistance(input-output)	R _{I-O}	V _{I-O} =500V DC	-	10 ¹²	-	Ω
*7 Capacitance(input-output)	C _{I-O}	f=1MHz	-	0.6	-	pF

*6 Current transfer ratio is a ratio of input current and output current expressed in %.

*7 Measured as 2-pin element (Short 1, 2, 3, 4 and 5, 6, 7, 8)

Switching Characteristics

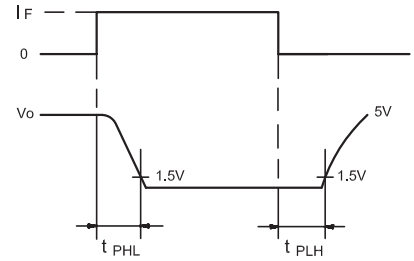
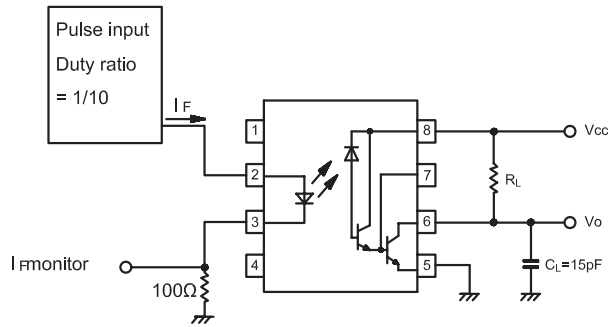
(Ta=25°C, V_{cc}=5V)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
*8 Propagation delay time Output (1)→(0)	t _{PHL}	R _L =2.2kΩ, I _F =1.6mA	-	2	10	uS
*8 Propagation delay time Output (0)→(1)	t _{PLH}	R _L =2.2kΩ, I _F =1.6mA	-	7	35	uS
*9 *10 Instantaneous common mode rejection voltage "Output (1)"	C _{MH}	I _F =0, V _{CM} =10V _{p-p} , R _L =2.2kΩ	-	500	-	V/uS
*9 *10 Instantaneous common mode rejection voltage "Output (0)"	C _{ML}	I _F =1.6mA, V _{CM} =10V _{p-p} , R _L =2.2kΩ	-	-500	-	V/uS

*9 Instantaneous common mode rejection voltage "output(1)" represents a common voltage variation that can hold the output above (1) level (V_o>2.0V).

*10 Instantaneous common mode rejection voltage "output(1)" represents a common voltage variation that can hold the output above (0) level (V_o<0.8V).

*8 Tset Circuit Propagation Delay Time



*10 Tset Circuit for Instantaneous Common Mode Rejection Voltage

