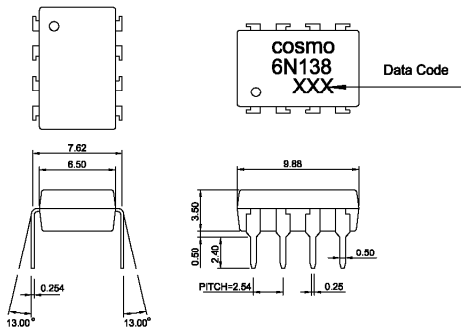
Features

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

Applications

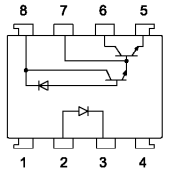
1. Interfaces for computer peripherals
2. Electronic calculators, measuring instruments, control equipment
3. Telephone sets.
4. Signal transmission between circuits of different potentials and impedances.

Outside Dimension:Unit (mm)



Tolerance:±0.2 mm

Schematic:Top View



1. NC
2. Anode
3. Cathode
4. NC
5. GND
6. Vo
7. V_B
8. Vcc

Absolute Maximum Ratings

(Ta=25℃)

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	Vcc	-0.5 to 7	V
	Output voltage	Vo	-0.5 to 7	V
	Emitter-base reverse withstand voltage (Pin 5 to 7)	V_{EBO}	0.5	V
	*3 Average output current	Io	60	mA
	Power dissipation	Po	100	mW
*4 Isolation voltage		Viso	2500	Vrms
Operating temperature		Topr	0 to +70	°C
Storage temperature		Tstg	-55 to +125	°C
*5 Soldering temperature		Tsol	260	°C

*1 50% duty cycle,Pulse width : 1ms
*2 Pulse width<=1us,300pps
*3 Decreases at the rate of 0.7mA/℃ if the external temperature is 25℃ or more.
*4 40 to 60% RH,AC for 1 minute
*5 For 10 seconds

Electro-optical Characteristics

(Ta=0 to +70℃ unless otherwise specified)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
*6 Current transfer ratio	CTR	I_F=1.6mA, Vo=0.4V, Vcc=4.5V	300	1600	-	%
Logic (0) output volage	V_{OL}	I_F=1.6mA, Io=4.8mA, Vcc=4.5V	-	0.1	0.4	V
Logic (1) output current	I_{OH}	I_F=0, Vcc=Vo=7V	-	0.1	250	uA
Logic (0) supply current	I_{CCL}	I_F=1.6mA, Vcc=5V, Vo=open	-	0.5	-	mA
Logic (1) supply current	I_{CCH}	I_F=0, Vcc=5V, Vo=open	-	10	-	nA
Input forward voltage	V_F	I_F=1.6mA, Ta=25℃	-	1.5	1.7	V
Input forward voltage temperature coefficient	$\triangle V_F/\triangle Ta$	I_F=1.6mA	-	-1.9	-	mV/℃
Input reverse voltage	BV_R	I_R=10uA, Ta=25℃	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℃	-	-	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

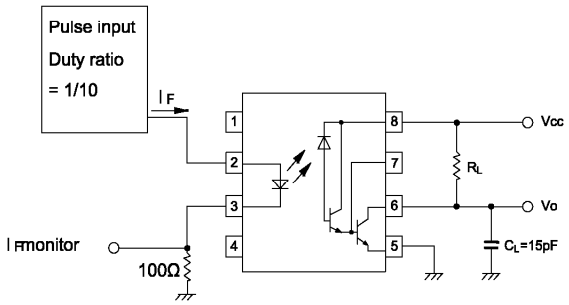
(Ta=25℃, Vcc=5V)

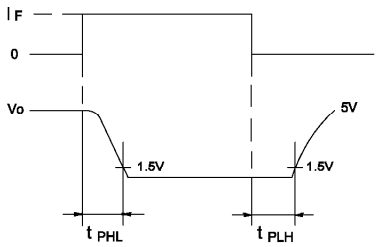
Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
*8 Propagation delay time Output (1)-->(0)	t_{PHL}	R_L=2.2kΩ, I_F=1.6mA	-	2	10	uS
*8 Propagation delay time Output (0)-->(1)	t_{PLH}	R_L=2.2kΩ, I_F=1.6mA	-	7	35	uS
*9 *10 Instantaneous common mode rejection voltage "Output (1)"	CM_H	I_F=0, V_{CM}=10V_{p-p}, R_L=2.2kΩ	-	500	-	V/uS
*9 *10 Instantaneous common mode rejection voltage "Output (0)"	CM_L	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 (Vo>2.0V).

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

*8 Tset Circuit Propagation Delay Time





*10 Tset Circuit for Instantaneous Common Mode Rejection Voltage