

### Features

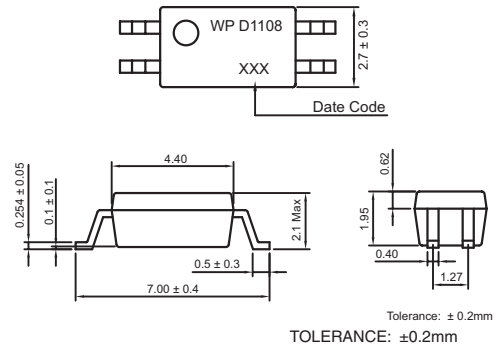
1. High isolation voltage ( $BV = 2500 V_{RMS}$ )
2. Small thin package (4-pin SSOP, Pin pitch 1.27mm)
3. High collector to emitter voltage ( $V_{CEO} = 80V$ )
4. AC input response.
5. High speed switching ( $t_r = 3\mu s$  typ.,  $t_f = 5\mu s$  typ.)
4. Available package types: SSOP(shown).

### Applications

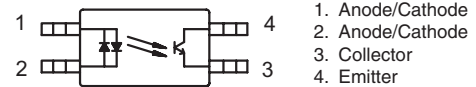
1. Programmable logic controllers.
2. Measuring instruments.
3. Hybrid IC.

**Part Numbering System:** Page 2. **Part Marking System:** Page 4.

### Outside Dimension: Unit (mm)



### Schematic: Top View



### Absolute Maximum Ratings

( $T_a = 25^\circ C$ )

Parameter		Symbol	Rating	Unit
Input	Forward Current(DC)	$I_F$	$\pm 50$	mA
	Power Dissipation derating	$P_D/^\circ C$	0.6	mW/ $^\circ C$
	Power Dissipation	$P_D$	60	mW
	Peak forward current*1	$I_{FP}$	$\pm 1$	A
Output	Collector-emitter voltage	$V_{CEO}$	80	V
	Emitter-collector voltage	$V_{ECO}$	6	V
	Collector current	$I_C$	50	mA
	Power dissipation derating	$P_C/^\circ C$	1.2	mW/ $^\circ C$
Total Power Dissipation		$P_C$	120	mW
Isolation voltage*2		$V_{iso}$	2500	V <sub>rms</sub>
Operating Temperature		$T_{opr}$	-30 to +100	$^\circ C$
Storage Temperature		$T_{stg}$	-55 to +150	$^\circ C$

\*1  $PW = 100\mu s$ , Duty Cycle = 1%

\*2 AC voltage for 1 minute at  $T_a = 25^\circ C$ , RH = 60% between input and output

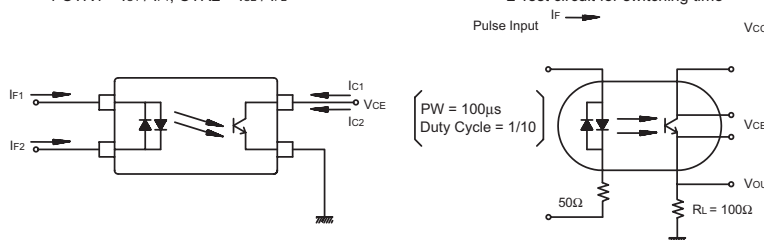
### Electro-optical Characteristics

( $T_a = 25^\circ C$ )

Parameter		Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward Voltage	$V_F$	$I_F = \pm 5mA$	-	1.1	1.4	V
	Terminal Capacitance	$C_t$	$V = 0, f = 1, 0MHz$	-	60	-	pF
Output	Collector-emitter dark current	$I_{CEO}$	$V_{CE} = 80V, I_F = 0mA$	-	-	100	nA
	Current transfer ratio( $I_C/I_F$ )	CTR	$I_F = \pm 5mA, V_{CE} = 5V$	80	-	600	%
Transfer Characteristics	CTR ratio*1	CTR1/CTR2	$I_F = 5mA, V_{CE} = 5V$	0.3	1.0	3.0	
	Collector Saturation Voltage	$V_{CE(sat)}$	$I_F = \pm 10mA, I_C = 2mA$	-	-	0.3	V
	Isolation resistance	$R_{I-O}$	$V_{I-O} = 500VDC$	$5 \times 10^{10}$	$10^{11}$	-	ohm
	Floating capacitance	$C_{I-O}$	$V = 0, f = 1, 0MHz$	-	0.4	-	pF
	Response time (Rise)*2	$t_r$	$V_{ce} = 5V, I_C = 2mA, R_L = 100\Omega$	-	3	-	$\mu s$
	Response time (Fall)*2	$t_f$		-	5	-	$\mu s$

\*1  $CTR1 = I_{C1} / I_{F1}$ ,  $CTR2 = I_{C2} / I_{F2}$

\*2 Test circuit for switching time



**Data Curves**

