

cosmo

**Mini-flat package General purpose
Photo Coupler KPC357NT**

UL 1577 (File No.E169586)

Features

1. Opaque type, mini-flat package.
2. Subminiature type
(The volume is smaller than that of our conventional DIP type by as far as 30%).
3. Current transfer ratio
(CTR:MIN.50% at $I_F=5mA$, $V_{ce}=5V$)
4. Isolation voltage between input and output (Viso:3750Vrms).

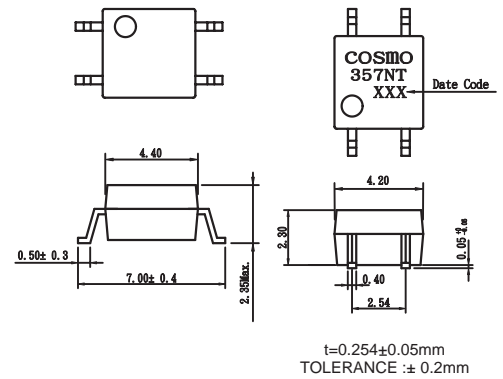
Applications

1. Hybrid substrates that require high density mounting.
2. Programmable controllers.

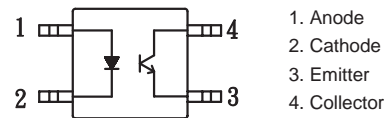
Classification table of current transfer ratio is shown below.

Model NO.	CTR (%)
A	80 TO 160
B	130 TO 260
C	200 TO 400
D	300 TO 600
E	50 TO 600

Outside Dimension : Unit (mm)



Schematic : Top View



Absolute Maximum Ratings

(Ta=25°C)

Parameter		Symbol	Rating	Unit
Input	Forward current	I_F	50	mA
	Peak forward current	I_{FM}	1	A
	Reverse voltage	V_R	6	V
	Power dissipation	P	70	mW
Output	Collector-emitter voltage	V_{CEO}	60	V
	Emitter-collector voltage	V_{ECO}	5	V
	Collector current	I_C	50	mA
	Collector power dissipation	P_C	150	mW
Total power dissipation		P_{tot}	170	mW
Isolation voltage 1 minute		Viso	3750	Vrms
Operating temperature		T_{opr}	-30 to +100	°C
Storage temperature		T_{stg}	-40 to +125	°C
Soldering temperature 10 seconds		T_{sol}	260	°C

Electro-optical Characteristics

(Ta=25°C)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V_F	$I_F=20mA$	—	1.2	1.4	V
	Reverse current	I_R	$V_R=4V$	—	—	10	uA
	Terminal capacitance	C_t	$V=0, f=1kHz$	—	30	250	pF
Output	Collector dark current	I_{CEO}	$V_{CE}=20V, I_F=0$	—	—	0.1	uA
	Collector-emitter breakdown voltage	BV_{CEO}	$I_C=0.1mA, I_F=0$	60	—	—	V
	Emitter-collector breakdown voltage	BV_{ECO}	$I_E=100uA, I_F=0$	5	—	—	V
Transfer characteristics	Current transfer ratio	CTR	$I_F=5mA, V_{CE}=5V$	50	—	600	%
	Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_F=20mA, I_C=1mA$	—	0.1	0.3	V
	Isolation resistance	Riso	DC500V, 40 to 60%RH	5×10^{10}	10^{11}	—	ohm
	Floating capacitance	C_f	$V=0, f=1MHz$	—	0.6	1.0	pF
	Response time (Rise)	t_r	$V_{CE}=2V, I_C=2mA, R_L=100ohm$	—	5	20	us
Response time (Fall)	t_f	—		4	20	us	

