

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).

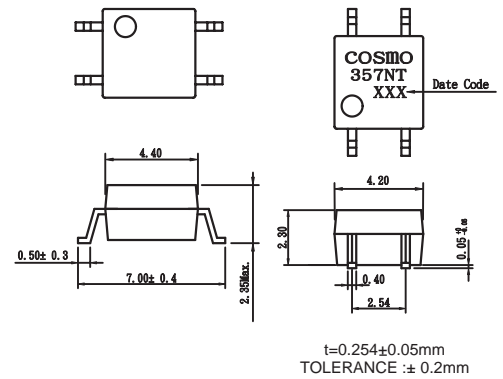
Applications

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

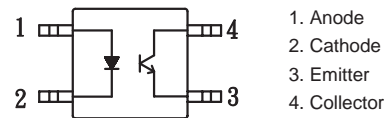
Classification table of current transfer ratio is shown below.

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

($T_a=25^{\circ}C$)

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	$^{\circ}C$
Storage temperature	T_{stg}	-40 to +125	$^{\circ}C$
Soldering temperature 10 seconds	T_{sol}	260	$^{\circ}C$

Electro-optical Characteristics

($T_a=25^{\circ}C$)

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

