PRODUCT SPECIFICATION

DATE：05/21/2007

cosmo ELECTRONICS CORPORATION	Power Photo TRIAC： KTLP3507H	62P46002 SHEET 1 OF 6	REV. 2

Photo Coupler for Power Photo TRIAC Output

● Features

1. Compact dual-in-line package.
2. 600V peak blocking voltage.
3. Isolation voltage between input and output 5000Vrms.

● Application：

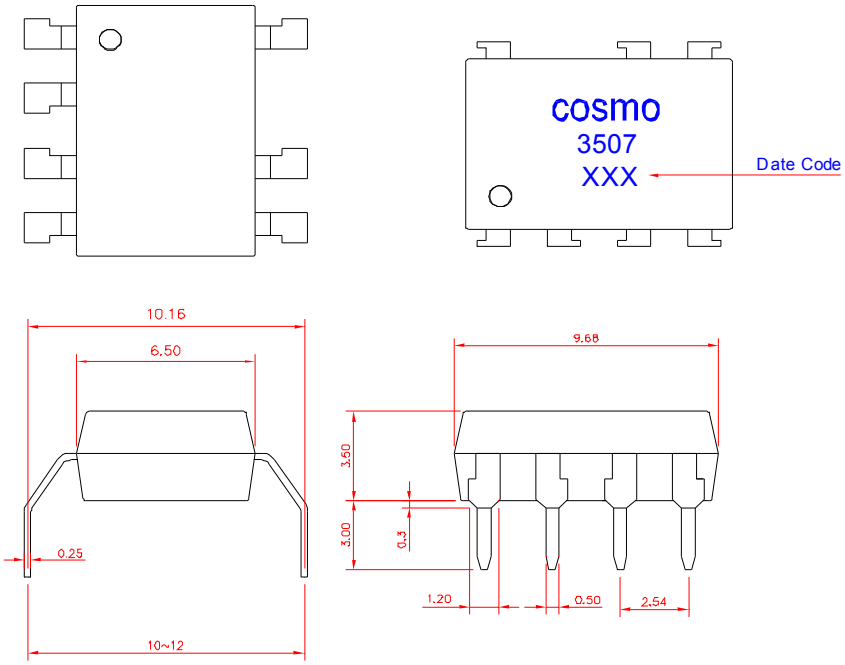
1. TRIAC Driver.
2. Programmable Controllers.
3. AC-Output Module.
4. Solid State Relay.

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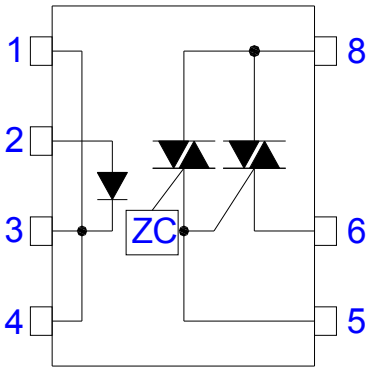
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● Outside dimension：Unit (mm)



Tolerance：±0.2mm

● Schematic：Top View



1. Cathode
2. Anode
3. Cathode
4. Cathode
5. Gate
6. T1
8. T2

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● Absolute Maximum Ratings

Parameter		Symbol	Rating	Unit
Input	Forward current	I_F	50	mA
	Peak forward current	I_{FP}	1	A
	Reverse voltage	V_R	6	V
Output	Off-State Output Terminal voltage	V_{DRM}	600	V
	On-State R.M.S. Current	$I_{T(RMS)}$	0.5	A
	Peak Nonrepetitive Surge Current (60Hz, Peak)	I_{TSM}	10	A
Isolation voltage (AC, 1 minute)		V_{iso}	5000	V_{rms}
Operating temperature		T_{opr}	-40 to +85	℃
Storage temperature		T_{stg}	-40 to +125	℃
Soldering temperature 10 second		T_{sol}	260	℃

● Electro-optical Characteristics

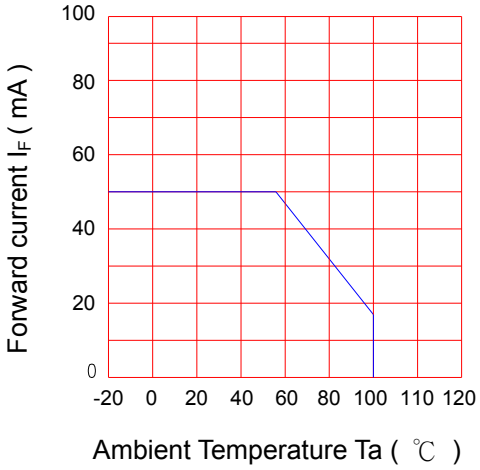
Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V_F	I_F = 10mA	-	1.2	1.4	V
	Reverse current	I_R	V_R = 6V	-	-	10	μA
Output	Peak Blocking Current	I_{DRM}	V_{DRM} = Rated	-	-	100	μA
	On-State Voltage	V_{TM}	I_T = 0.75A	-	-	3	V
	Holding Current	I_H	V_D = 5V	-	-	25	mA
	Critical rate of rise of Off-state voltage	dV/dt	$V_{DRM} = (1/\sqrt{2}) \cdot$ Rated	-	1000	-	V/μs
Transfer characteristics	Inhibit voltage (MT1-MT2 Voltage above which device not trigger)	V_{INH}	I_F = Rated I_{FT}	-	-	50	V
	Leakage in Inhibited State	I_{DRM2}	I_F = Rated I_{FT}, Rated V_{DRM}, Off State	-	200	-	μA
	Isolation resistance	R_{iso}	DC500V	5×10^{10}	-	-	Ω
	Minimum trigger current	I_{FT}	V_D = 5V	-	-	10	mA

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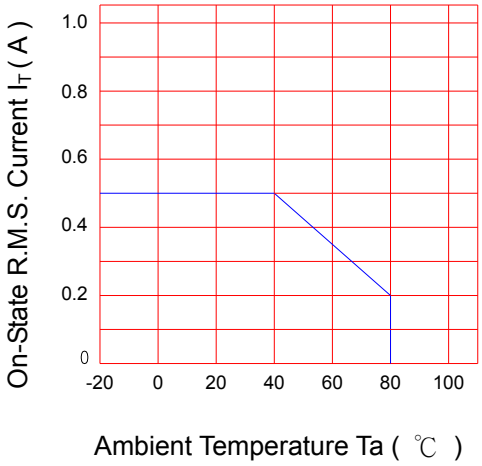
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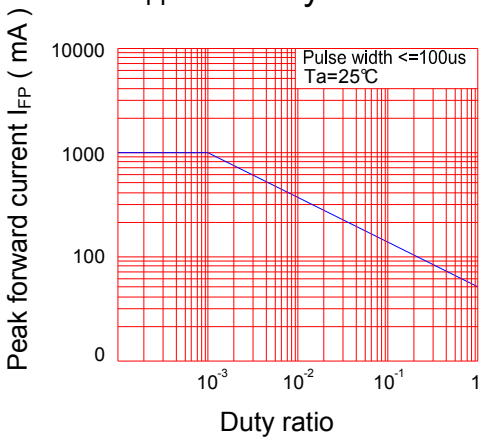
I_F vs. T_a



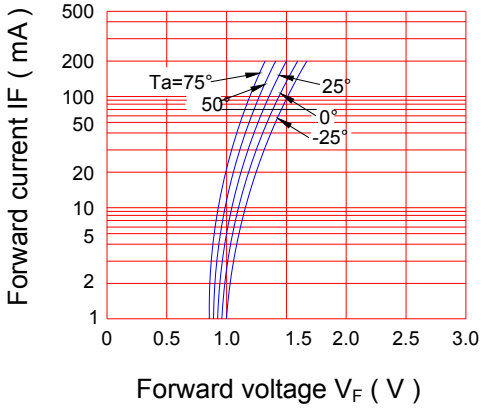
I_T vs. T_a



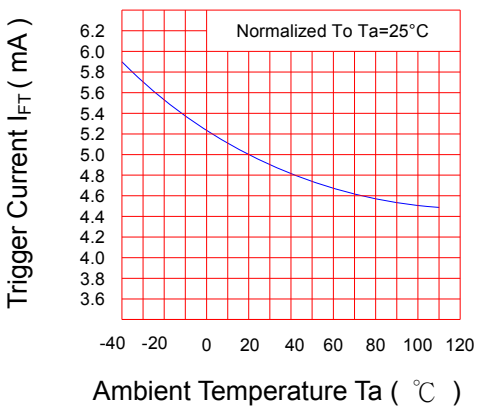
I_{FP} vs. Duty Ratio



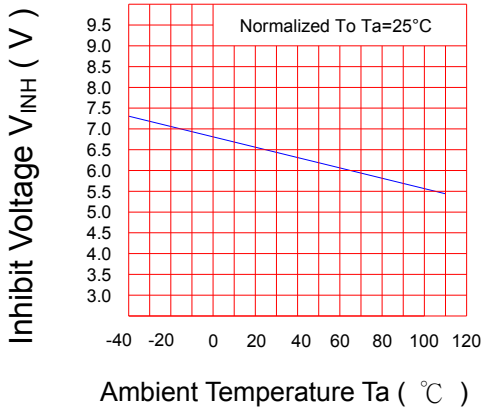
I_F vs. V_F



I_{FT} vs. T_a



V_{INH} vs. T_a

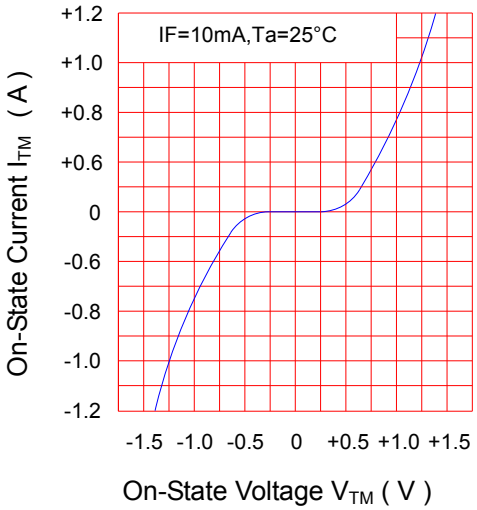


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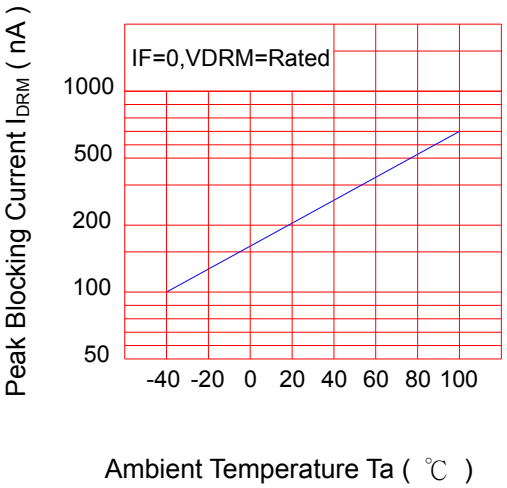
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I_{TM} vs. V_{TM}



I_{DRM} vs. T_a



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- Telecommunication equipment (trunk lines).
- Nuclear power control equipment.

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