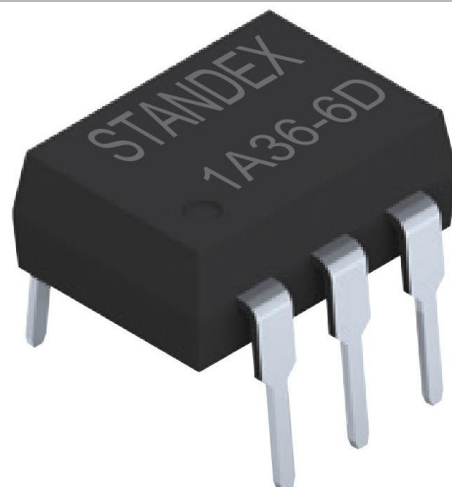


36 Series Photo-MOSFET Relay

- **Features:** High Current Photo MOSFET Relay, switching up to 2.5 Amps
- **THT or SMD ; UL listed, RoHS Compliance**
- **Applications:** Automatic Test Equipment, Battery Management Systems, I/O Modules, Telephone Equipment
- **Markets:** Automotive, Telecommunication, Test & Measurement, Security


Part Description: **SMP-XA36-6XX-X**

Number of Poles	Contact Form	Series Number	Number of Pins	Mounting Type	Package Style	Special Features
1	A	36	6	D, S	Tube, Reel	Nil, R

See page 4 for Glossary

Maximum Ratings @ Ambient Temperature = 25°C

Parameters	Symbol	Value	Units	Condition
		1A36-6D, S		
INPUT SPECIFICATIONS				
Continuous LED Current	I_F	50	mA	-
Peak LED Current	I_{FP}	500	mA	f=100Hz, 1% Duty Cycle
LED Reverse Voltage	V_R	5	V	-
Input Power Dissipation	P_{IN}	75	mW	-
OUTPUT SPECIFICATIONS				
Load Voltage	V_L	60	DC or Peak AC	-
Load Current	I_L	2.5	A	Schematic 1 (AC or DC)
	I_L	3.5	A	Schematic 2 (DC)
	I_L	5.0	A	Schematic 3 (DC)
Peak Load Current	I_{PEAK}	6.0	A	1 ms, 1 shot
Output Power Dissipation	P_{OUT}	500	mW	-
GENERAL SPECIFICATIONS				
Total Power Dissipation	P_T	550	mW	-
I/O Breakdown Voltage	$V_{I/O}$	3750	V_{RMS}	-
I/O Breakdown Voltage	$V_{I/O}$	5000	V_{RMS}	Suffix R
Operating Temperature	T_{OPR}	-40/+85	°C	-
Storage Temperature	T_{STG}	-40/+100	°C	-



RoHS

REACH
COMPLIANT

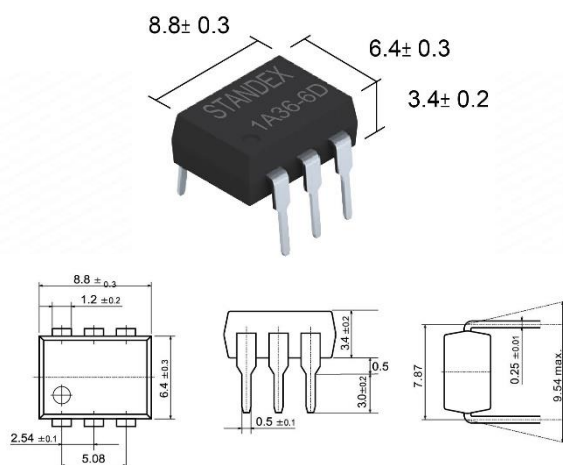
36 Series Photo-MOSFET Relay

Maximum Ratings @ Ambient Temperature = 25°C

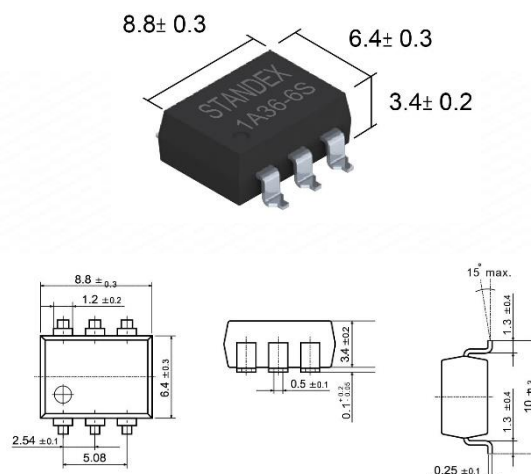
Parameters	Symbol	Min	Typ	Max	Units	Condition
INPUT SPECIFICATIONS						
LED Forward Voltage	V _F	1.0	1.7	1.5	V	I _F = 10mA
Operation LED Current	I _{F ON}	-	1.5	3.0	mA	-
Recovery LED Voltage	V _{F OFF}	0.5	1.0	-	V	-
OUTPUT SPECIFICATIONS						
On Resistance: Drain to Drain	R _{ON}	-	0.07	0.03	Ω	I _F = 10mA, I _L =Rating (within 1 sec.)
Off-State Leakage Current	I _{LEAK}	-	-	1.0	μA	V _L =60V
Output Capacitance	C _{OUT}	-	470	-	pF	VL=0V, f=1MHz
TRANSMISSION SPECIFICATIONS						
Turn-On Time	T _{ON}	-	0.6	3.0	ms	I _F = 10mA, I _L =Rating
Turn-Off Time	T _{OFF}	-	0.04	0.5	ms	
COUPLED SPECIFICATIONS						
I/O Insulation Resistance	R _{I/O}	5x10 ⁹	-	-	Ω	-
I/O Capacitance	C _{I/O}	-	1.0	-	pF	f=1MHz

Photo-MOSFET Relay Dimensions (Tolerances acc. to ISO 2768-mp)

DIP6

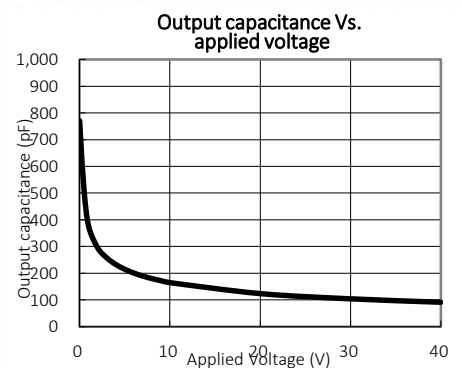
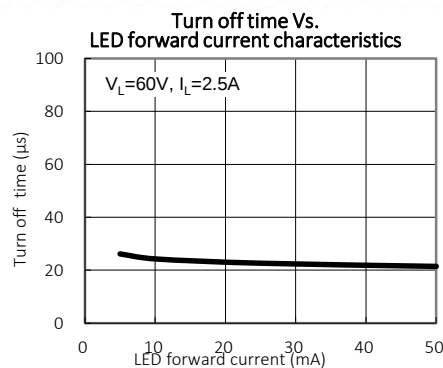
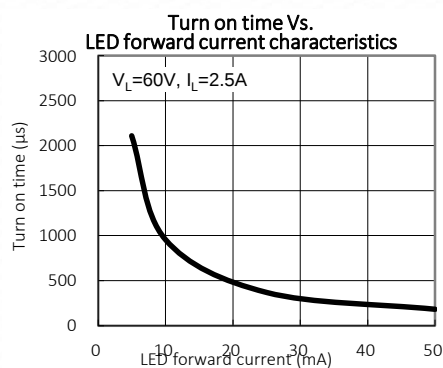
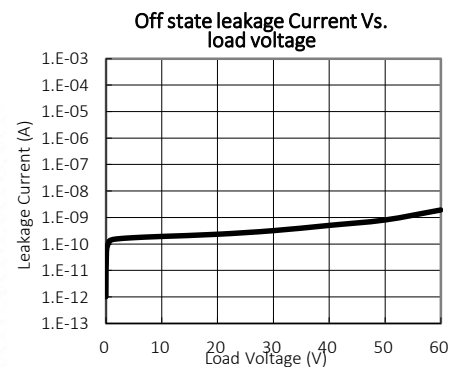
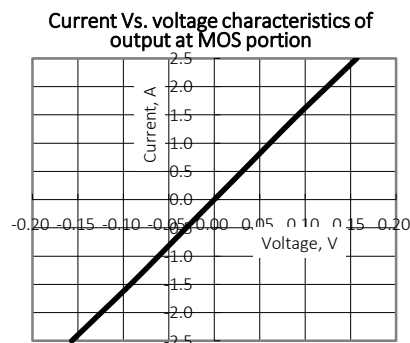
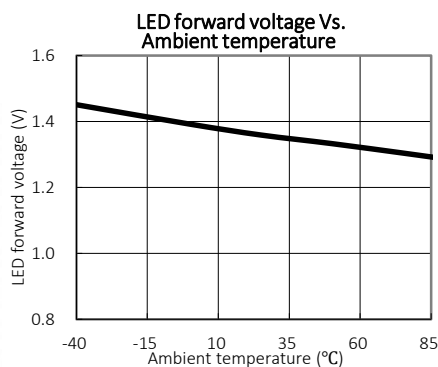
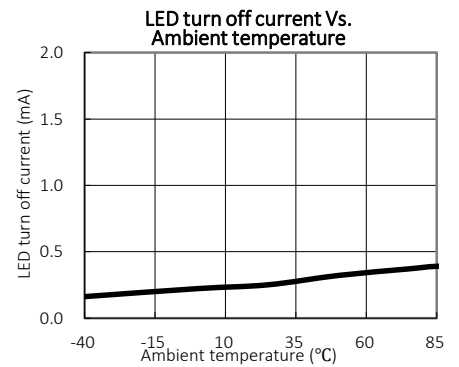
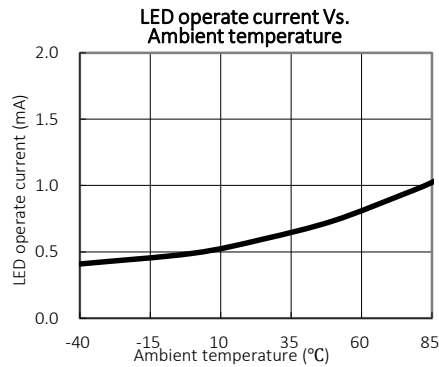
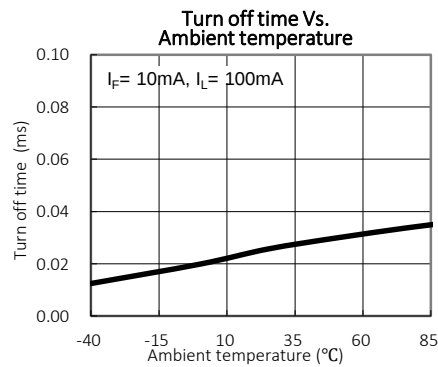
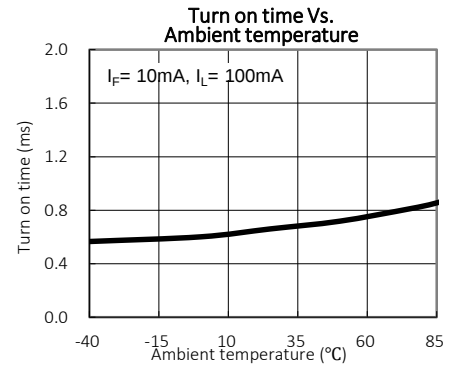
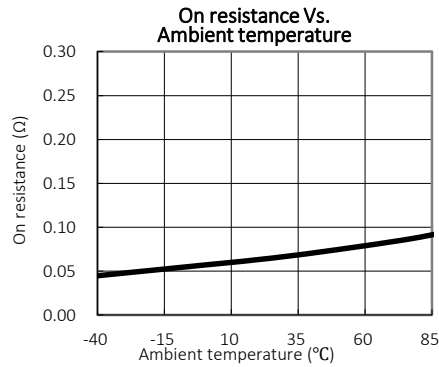
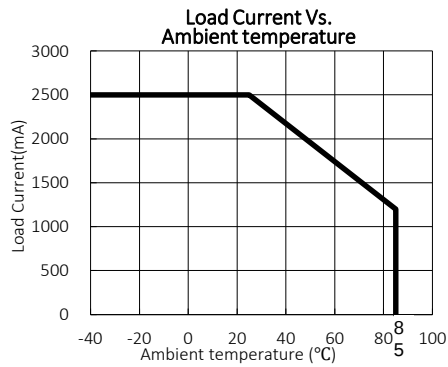


SMD6

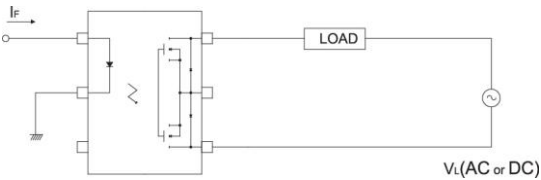
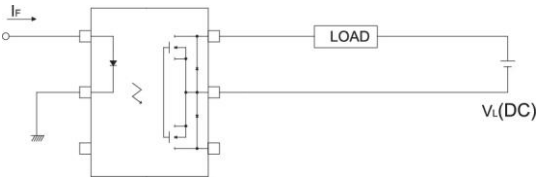
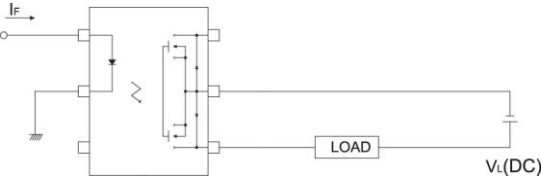
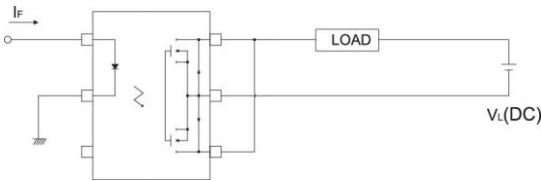


36 Series Photo-MOSFET Relay

Photo MOSFET Relay Reference Data



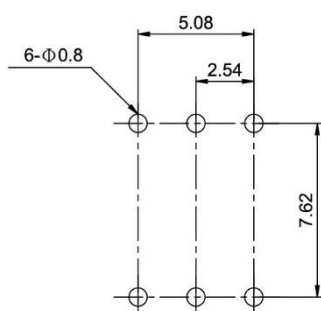
36 Series Photo-MOSFET Relay

Photo-MOSFET Relay Load Connection Method			
TYPE	LOAD	CONNECTION	FEATURE
6-PIN	AC OR DC		Control bi-directional signal
	DC		On-Resistance is 1/2 of connection 1 2-Make-contacts (Source Common)
			
	DC		On-Resistance is 1/2 of connection 2

36 Series Photo-MOSFET Relay

Photo MOSFET Relay Recommended PCB Pad Layout (Tolerances acc. to ISO 2768-mp)

DIP4 (Bottom View)



SMD6 (Top View)

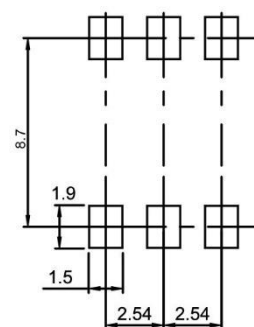
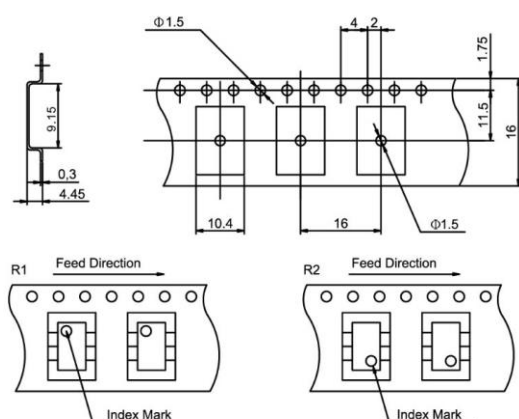


Photo MOSFET Relay Tape & Reel Packaging (1,000 pcs per reel) / THT Packaging (50 pcs per tube)



SMD6

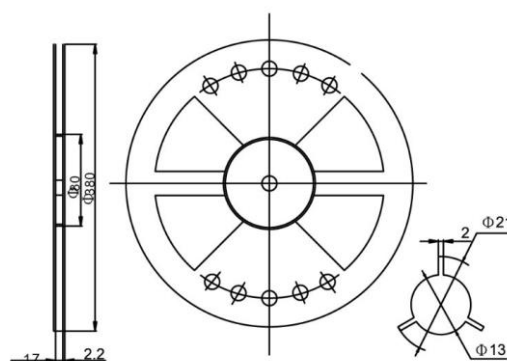
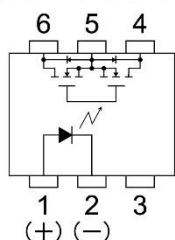


Photo MOSFET Relay Pin-Out (Top View)

6 PIN



- 1: Anode (LED)
- 2: Cathode (LED)
- 3: NC
- 4, 6: Drain (MOS FET)
- 5: Source (MOS FET)

Glossary Options

D	DIP (Dual-In-Line Package)
S	SMD (Surface Mount Design)
P	SOP (Small-Outline Package)
Q	AEC-Q101 / High Temperature
R	Reinforced Isolation

Please note: All technical specifications in this series datasheet refer to the standard product range. Modifications in the sense of technical progress are reserved. For general information only. For more specific information, please consult the product datasheet, available upon request.

This series datasheet could contain technical inaccuracies or typographical errors. Changes are periodically made to the information herein. These changes will be incorporated in future revisions.

For deviating values, latest specifications and product details, please contact your nearest sales office.