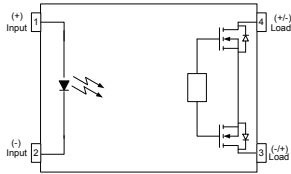
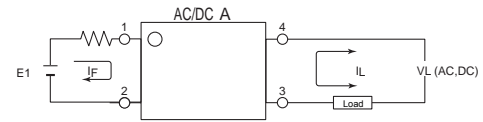




Parameter	Symbol	Rating	Units
Load Voltage	V_L	1800	V
Load Current	I_L	0.030	A
Leakage Current	I_{Leak}	0.1	μA
Low Out Capacitance	C_{out}	8	pF



AC/DC Type
 (1) Input: DC +
 (2) Input: DC -
 (3) Output: DC or AC
 (4) Output: DC or AC



APSEMI PhotoRelays

APSEMI Photorelays are the most reliable, technically advanced logic-to-power interface devices. Their basic function is to take a low current signal from a microprocessor to control the switching of both AC and DC loads, while providing an isolation barrier between logic and power. While this function is common to all relays, Photorelays provide distinct advantages over their mechanical counterparts including:

- Long life (No limit on mechanical and electrical lifetime)
- Bounce-free switching
- Higher speed and high frequency switching
- Higher sensitivity (less power consumption)
- Immunity to EMI or RFI
- No have voltaic arc, bounce, and noise
- More resistant to vibration and impact
- AC or DC load switching
- Small package size

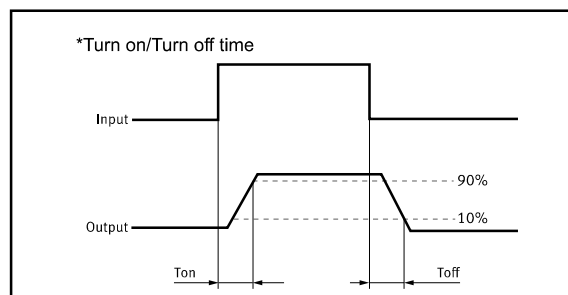
Applications

These advantages make APSEMI Photorelays the ideal choice for:

- Telecom/Datacom switching
- Multiplexers
- Meter reading systems
- Data acquisition
- Medical equipment
- Battery monitoring
- I/O Sub-Systems
- Robotics
- Aerospace
- Home/Safety security systems
- Process Control
- Energy Management
- Reed Relay EMR Replacement
- Programmable Controllers

TPYES

Category	Output Rating		Package	Part No.	Packing Quantity
	Load Voltage	Load Current			
AC/DC	1800V	30mA	WDIP-4	APV278WE	50pcs /tube 500pcs /Package





Absolute Maximum Ratings (Ta = 25°C)

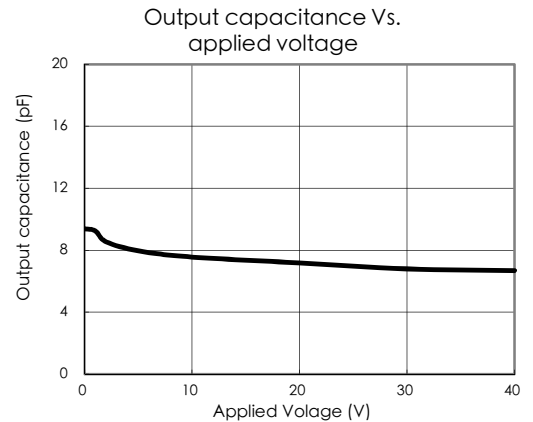
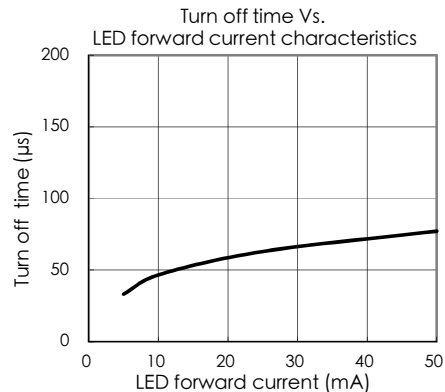
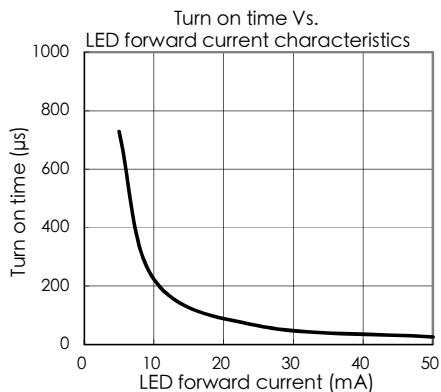
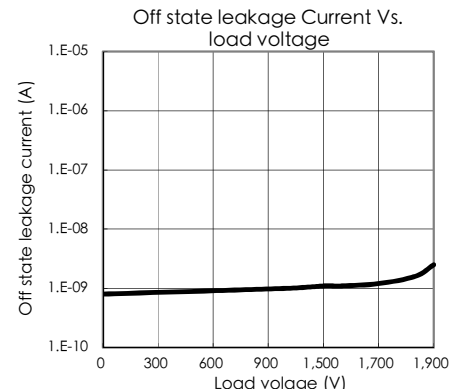
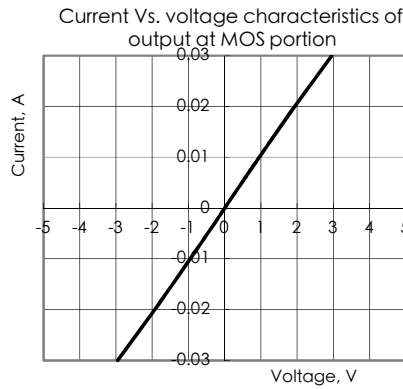
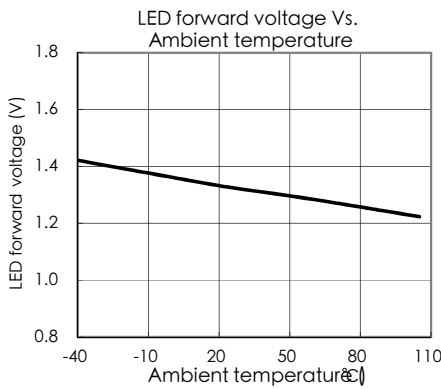
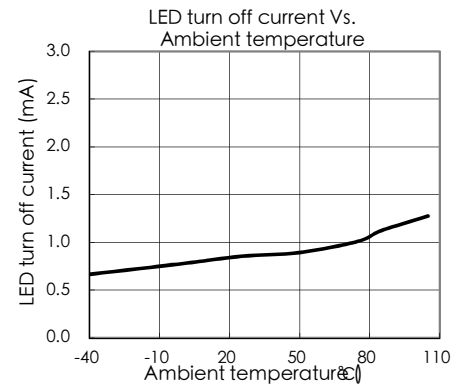
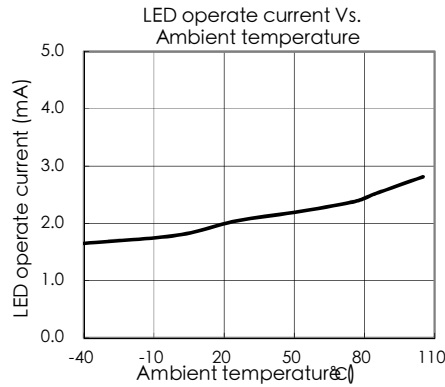
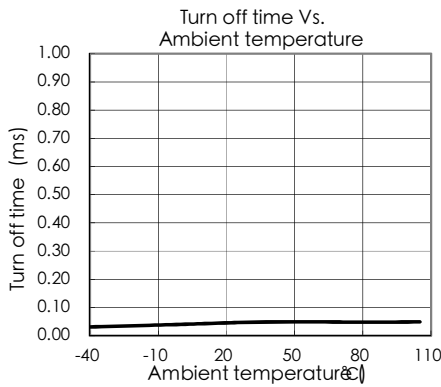
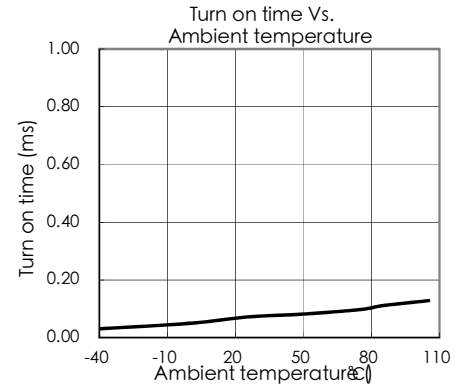
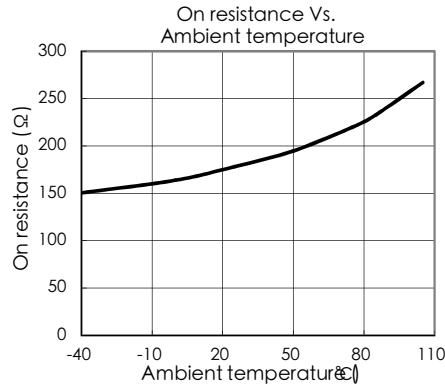
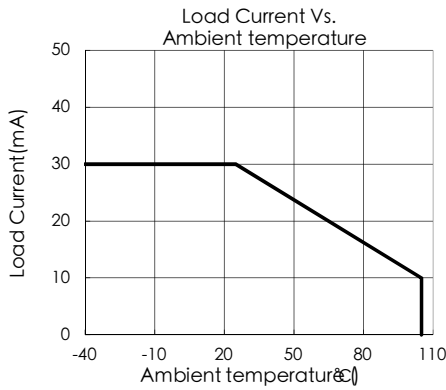
Item		Symbol	Value	Units	Note
Input	Continuous LED Current	I_F	50	mA	
	Peak LED Current	I_{FP}	1000	mA	f=100Hz, duty=1%
	LED Reverse Voltage	V_R	5	V	
	Input Power Dissipation	P_{In}	75	mW	
Output	Load Voltage	V_L	1800	V(AC peak or DC)	
	Load Current	I_L	30	mA	
	Peak Load Current	I_{Peak}	500	mA	100ms(1 pulse)
	Output Power Dissipation	P_{out}	450	mW	
Total Power Dissipation		P_T	500	mW	
I/O Breakdown Voltage		$V_{I/O}$	5000	Vrms	RH=60%, 1min
Operating Temperature		T_{opr}	-40 to 85	°C	
Storage Temperature		T_{stg}	-40 to 100	°C	
Pin Soldering Temperature		T_{sol}	260	°C	10 sec max.

Electrical Characteristics (Ta = 25°C)

Item		Symbol	MIN.	TYP.	MAX.	Units	Conditions
Input	LED Forward Voltage	V_F		1.33	1.5	V	$I_F=10mA$
	Operation LED Current	I_{Fon}		2.0	5.0	mA	
	Recovery LED Current	I_{Foff}		0.35	0.8	mA	
	Recovery LED Voltage	V_{Foff}	0.7			V	
Output	On-Resistance	R_{on}	120	200	260	Ω	$I_F=10mA, I_L= Rating,$ Time to flow is within 1 sec.
	Off-State Leakage Current	I_{Leak}			0.1	μA	$V_L=Rating$
	Output Capacitance	C_{out}		8		pF	$V_L=0, f=1MHz$
Transmis sion	Turn-On Time	T_{on}		0.08	0.1	ms	$I_F=10mA, I_L=Rating$
	Turn-Off Time	T_{off}		0.05	0.1	ms	
Coupled	I/O Isolation Resistance	$R_{I/O}$	10^{10}			Ω	DC500V
	I/O Capacitance	$C_{I/O}$		0.8	1.3	pF	f=1MHz



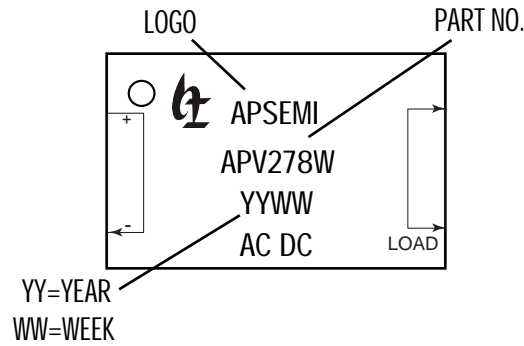
Reference Data





Marking and Label

Marking

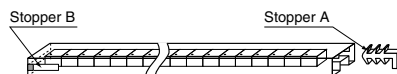


Label



DIP Tape dimensions Unit : mm

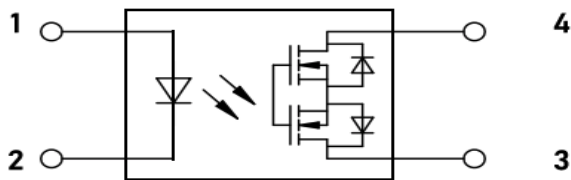
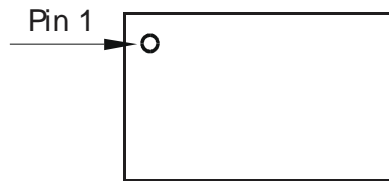
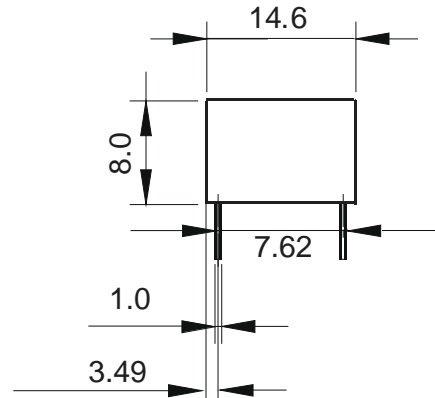
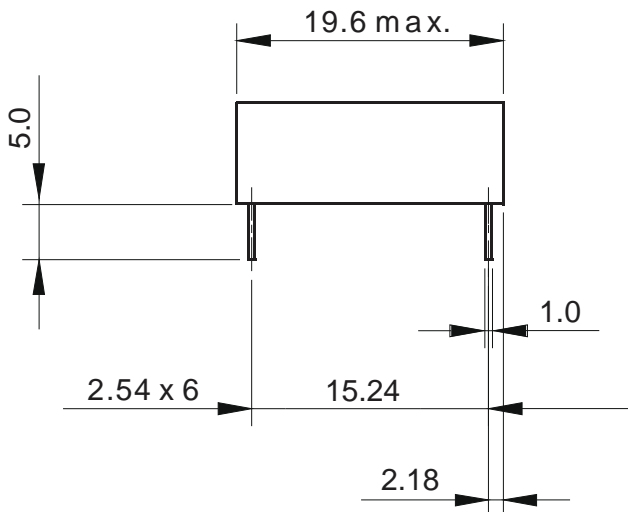
Devices are packaged in a tube so that pin No. 1 is on the stopper B side. Observe correct orientation when mounting them on PC boards.





Dimensions and DIP-5 Package Unit: mm

Through hole terminal type



AC/DC Type

- (1) Input: DC +
- (2) Input: DC -
- (3) Output: DC or AC
- (4) Output: DC or AC

PC board pattern (Bottom view)

