

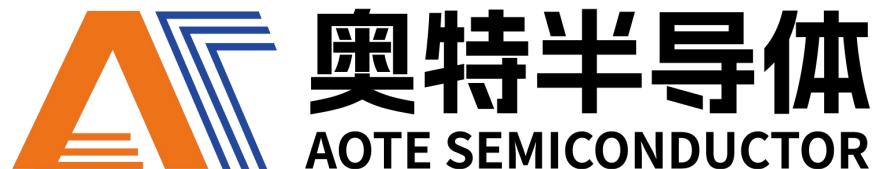
# Photo Coupler Selection Guide

2023.3.20

OPP

Ver: 1.5

[www.aotesemi.com](http://www.aotesemi.com)



# Introduction

The photo coupler is composed of a light emitter and a receiver and Coupling with light as the medium. It can be applied to a circuit design that requires isolation between input and output. AOTE provides a series of photo coupler for customers to choose that meet the needs in terms of communication, switch control and power control functions. According to the different internal structure of the photo coupler, they are divided into five categories, and AOTE provide Various of packaging types.

## Transistor Output

-  General Purpose Coupler
-  Darlington Transistor

## Analog Output

-  20Kbps
-  100Kbps
-  1Mbps

## Digital Output

-  5Mbps
-  10Mbps
-  15Mbps

## Triac Output

-  Photo Triac

## Power Triac

-  Photo Power Triac

## Solid State Relay

-  General Purpose Solid State Relay

## IGBT Gate Driver

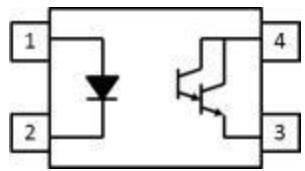
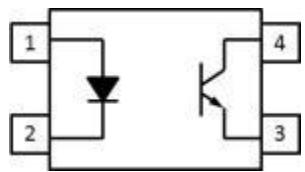
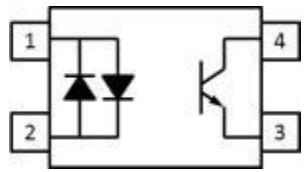
-  IGBT/MOSFET Gate Driver

## IPM

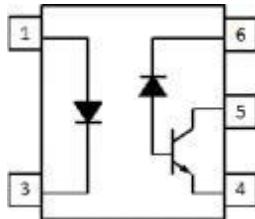
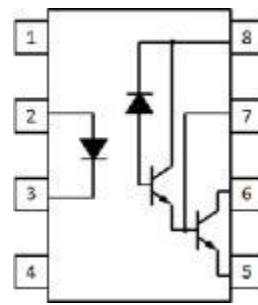
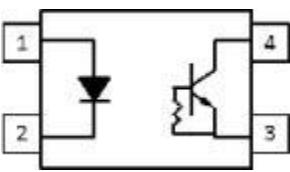
-  Intelligent Power Module(IPM) interface

# Photo Coupler Product Lineup 1/2

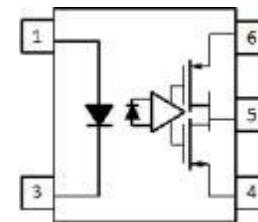
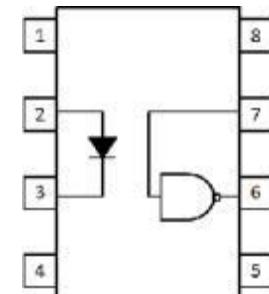
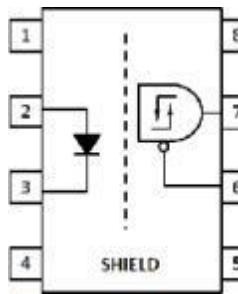
## Transistor Output



## Analog Output

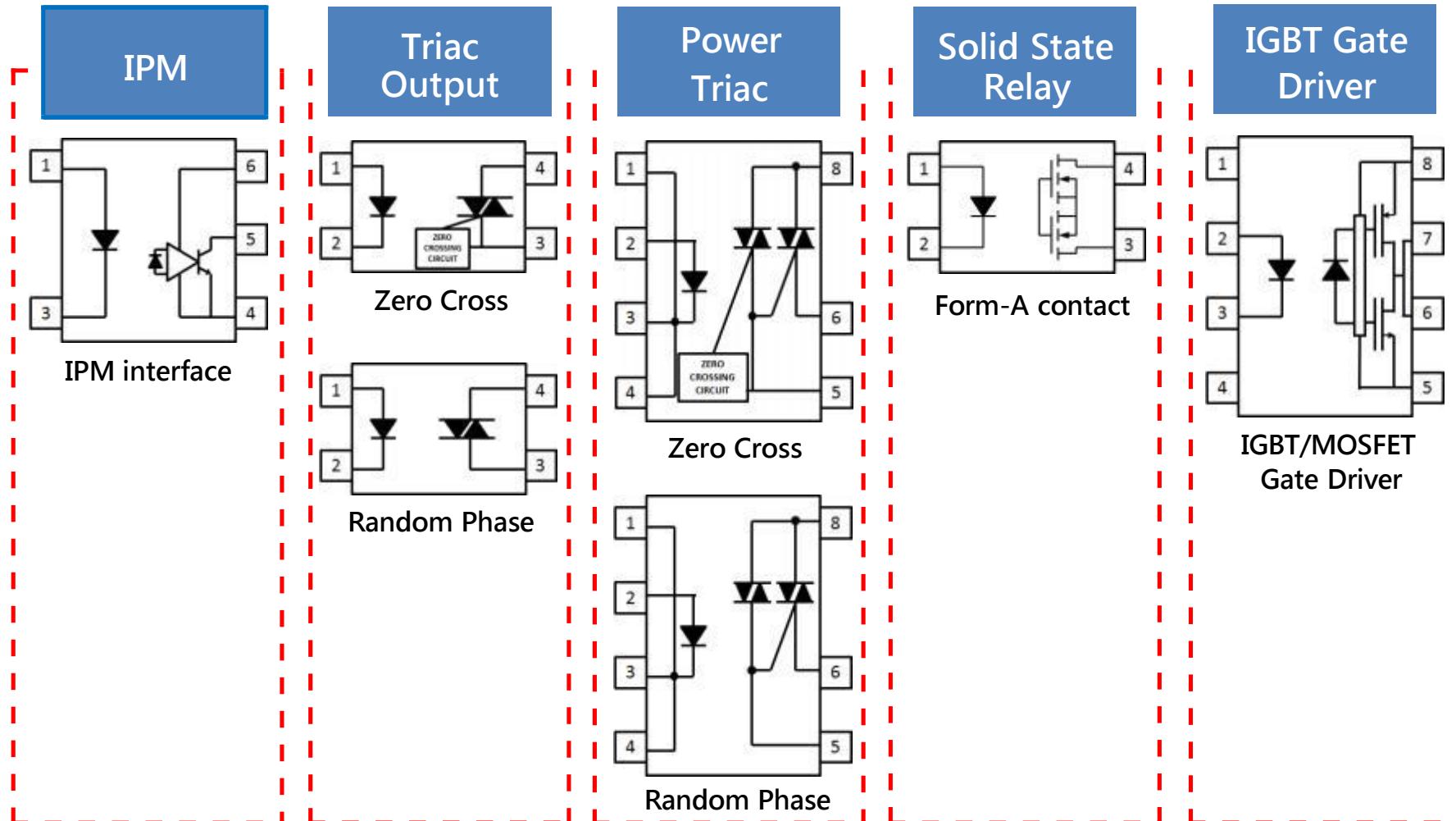


## Digital Output



Press the coupler type above for detail information.

# Photo Coupler Product Lineup 2/2



Press the coupler type above for detail information.

# Application Selection 1/2

## Communication

- ☛ Data transfer between two devices.  
(High Speed Coupler, Photo Coupler)

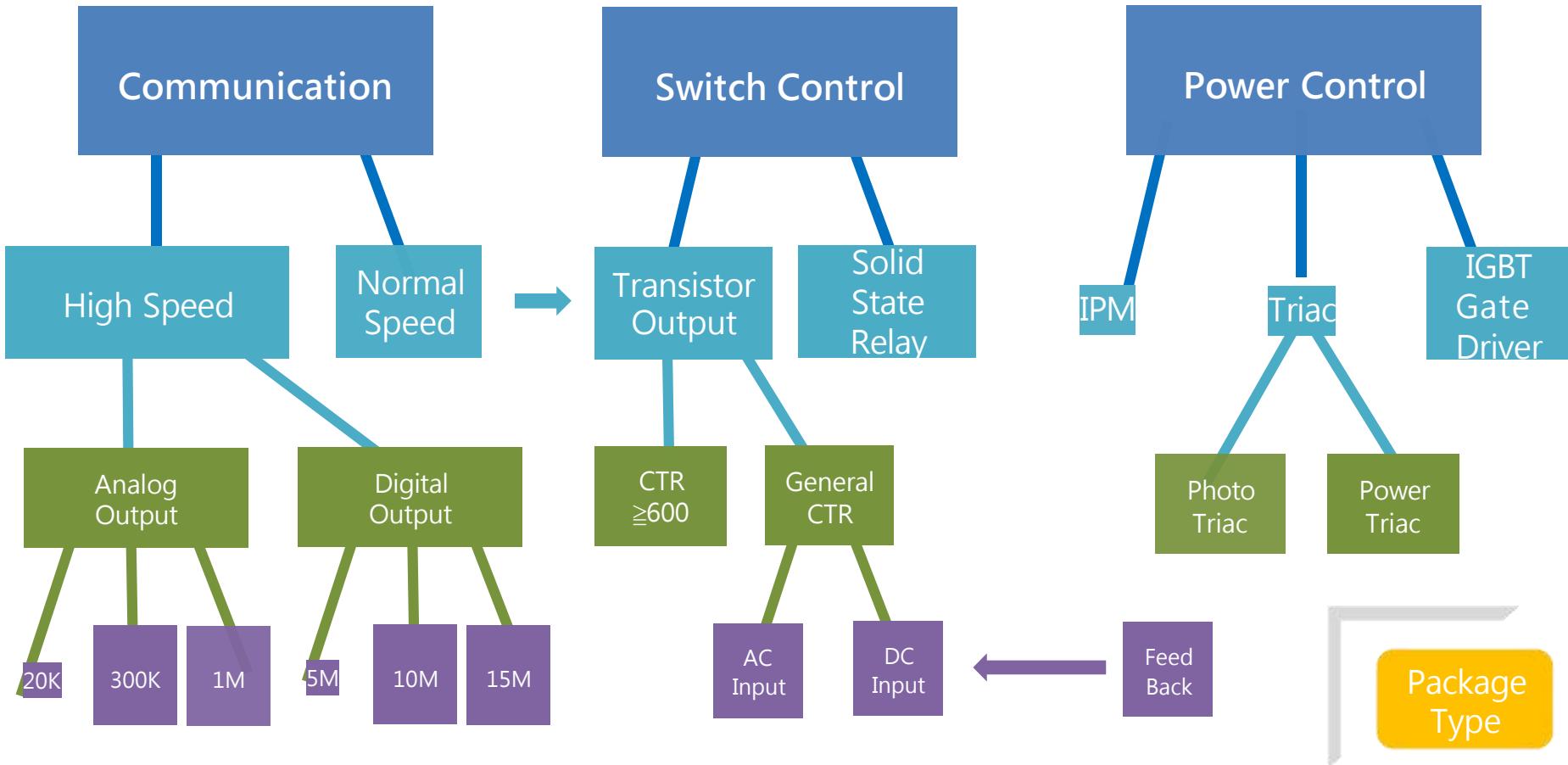
## Switch Control

- ☛ Driving the next device to turn-on or turn-off.  
(Transistor & SSR)

## Power Control

- ☛ AC power control component(Triac)
- ☛ Driving power IGBT(IGBT Gate Driver).
- ☛ Power supply output voltage feedback  
(Photo Coupler).
- ☛ isolated interfacing to an intelligent power module  
(IPM).

# Application Selection 2/2



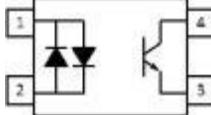
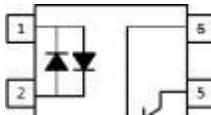
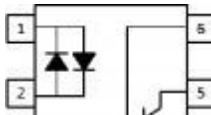
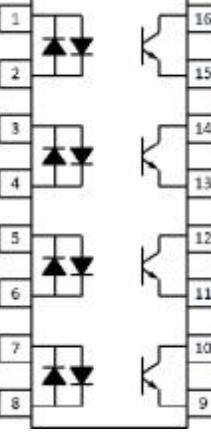
Select the most suitable Coupler model according to the selection flow and corresponding table.



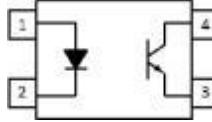
Back

# General Photo Coupler

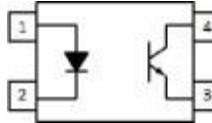
# Transistor Output(AC Input)

Input Type	Pin Configuration	Package Type	Part Number	CTR				B V <sub>CE0</sub> (V)	V <sub>IS0@1min</sub> . (V <sub>rms</sub> )
				Rank	Min.(%)	Max.(%)	@ I <sub>F</sub> /V <sub>CE</sub> (mA)(V)		
AC		DIP,M,S1	AT814	-	20	300	$\pm 1/5$	80	5000
				A	50	150			
		SOP-2.54	AT354N	-	20	300	$\pm 1/5$	80	3750
				A	50	150			
		DIP, M, S1	H11AX	H11A1	20	-	$\pm 10/10$	80	5000
				H11A2	10	-			
				H11A3	50	-			
				H11A4	100	-			
				H11A5	30	-			
		SSOP-1.27	ATQ3H	-	20	300	$\pm 1/5$	80	3750

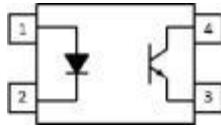
# Transistor Output(DC Input)

Input Type	Pin Configuration	Package Type	Part Number	CTR				B V <sub>CEO</sub> (V)	V <sub>ISO@1min.</sub> (V <sub>rms</sub> )		
				Rank	Min.(%)	Max.(%)	@ I <sub>F</sub> / V <sub>CE</sub> (mA)(V)				
DC		DIP, M, S1	AT816	-	50	600	5/5	80	5000		
				A	80	160					
				B	130	260					
				C	200	400					
				D	300	600					
				X	100	200					
				Y	150	300					
				I	63	125	10/5				
				J	100	200					
				K	160	320					
			AT817	I	22	-	1/5				
				J	34	-					
				K	56	-					
				-	50	600	5/5	35	5000		
				A	80	160					
				B	130	260					
				C	200	400					

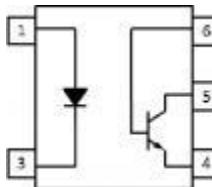
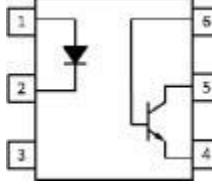
# Transistor Output(DC Input)

Input Type	Pin Configuration	Package Type	Part Number	CTR				B V <sub>CE0</sub> (V)	V <sub>ISO@1min</sub> . (V <sub>rms</sub> )		
				Rank	Min.(%)	Max.(%)	@ I <sub>F</sub> /V <sub>CE</sub> (mA)(V)				
DC		LSOP-2.54  SOP-2.54	AT101X  AT357N	AT1010	50	600	5/5	80	5000		
				AT1017	80	160					
				AT1018	130	260					
				AT1019	200	400					
				AT1012	63	125					
				AT1013	100	200	10/5				
				AT1014	160	320					
				AT1012	22	-					
				AT1013	34	-	1/5				
				AT1014	56	-					
				-	50	600	5/5	80	3750		
				A	80	160					
				B	130	260					
				C	200	400					
				D	300	600					
				E	100	200					
				F	150	300					

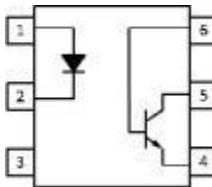
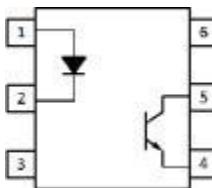
# Transistor Output(DC Input)

Input Type	Pin Configuration	Package Type	Part Number	CTR				B V <sub>CEO</sub> (V)	V <sub>ISO@1min.</sub> (V <sub>rms</sub> )
				Rank	Min. (%)	Max. (%)	@ I <sub>F</sub> /V <sub>CE</sub> (mA)(V)		
DC		LSOP-2.54	AT357L	-	60	300	1/5	70	5000
				(A)	63	125			
				(B)	100	200			
		SSOP-1.27	AT3H7	-	50	600	5/5	80	3750
				A	80	160			
				B	130	260			
				C	200	400			
				D	300	600			
				E	100	200			
				F	150	300			
				H	40	80			
				I	63	125			
				J	100	200			
				K	160	320			
		SOP-2.54	AT121N	-	50	400	5/5	80	3750
				B	130	260			
				C	200	400			
		CNY64/65	CNY64/65	BC	130	400	5/5	80	8200
				-	50	300			
				A	63	125			
				B	100	200			

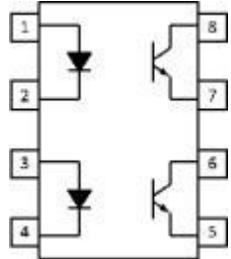
# Transistor Output(DC Input)

Input Type	Pin Configuration	Package Type	Part Number	CTR				B V <sub>CEO</sub> (V)	V <sub>ISO@1 min.</sub> .(V <sub>rms</sub> ,		
				Rank	Min.(%)	Max.(%)	@ I <sub>F</sub> / V <sub>CE</sub> (mA)(V)				
DC	 	 	AT111X           4N2X     4N3X     H11AX     	AT1110	50	600	5/5	80	5000		
				AT1116	100	300					
				AT1117	80	160					
				AT1118	130	260					
				AT1119	200	400					
				AT1112	63	125	10/5				
				AT1113	100	200					
				AT1114	160	320	1/5				
				AT1112	22	-					
				AT1113	34	-					
				AT1114	56	-					
				4N25	100	-	10/10	80	5000		
				4N26	20	-					
				4N27	20	-					
				4N28	10	-					
				4N35	100	-	10/10	80	5000		
				4N36	100	-					
				4N37	100	-					
				4N38	20	-					
				H11A1	50	-	10/10	80	5000		
				H11A2	20	-					
				H11A3	20	-					
				H11A4	10	-					
				H11A5	30	-					

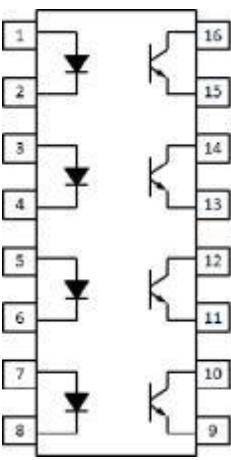
# Transistor Output(DC Input)

Input Type	Pin Configuration	Package Type	Part Number	CTR				B V <sub>CE0</sub> (V)	V <sub>ISO@1 min.</sub> (V <sub>rms</sub> )		
				Rank	Min.(%)	Max.(%)	@ I <sub>F</sub> / V <sub>CE</sub> (mA)(V)				
DC		DIP,M S, S1	TIL11X	TIL111	★	-	10/10	80	5000		
				TIL117	50	-					
		DIP,M S, S1	MCT2X	MCT2	20	-	10/10	80	5000		
				MCT2E	20	-					
		DIP,M S, S1	CNY17-X	CNY17-1	40	80	10/5	80	5000		
				CNY17-2	63	125					
				CNY17-3	100	200					
				CNY17-4	160	320					
				CNY17-1	13	-	1/5				
				CNY17-2	22	-					
				CNY17-3	34	-					
				CNY17-4	56	-					
		DIP,M S, S1	CNY17F-X	CNY17F-1	40	80	10/5	80	5000		
				CNY17F-2	63	125					
				CNY17F-3	100	200					
				CNY17F-4	160	320					
				CNY17F-1	13	-	1/5				
				CNY17F-2	22	-					
				CNY17F-3	34	-					
				CNY17F-4	56	-					

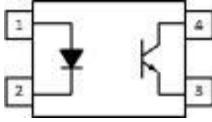
# Transistor Output(DC Input)

Input Type	Pin Configuration	Package Type	Part Number	CTR				BV <sub>CE0</sub> (V)	V <sub>ISO@1min.</sub> (V <sub>rms</sub> )
				Rank	Min.(%)	Max.(%)	@I <sub>F</sub> / V <sub>CE</sub> (mA)(V)		
DC		DIP, M, S1	AT827	-	50	600	5/5	80	5000
		SSOP-1.27	ATD3H7	-	50	600	5/5	80	3750
		SOP-1.27	ATD20X	ATD205	40	80	10/5	80	3750
				ATD206	63	125			
				ATD207	100	200			
				ATD205	13	-			
				ATD206	22	-	1/5		
				ATD207	34	-			
		SOP-1.27	ATD21X	ATD211	20	-	10/5	80	3750
				ATD213	100	-			
				ATD217	100	120	1/5		
		SOP-1.27	AT20X	AT205	40	80	10/5	80	3750
				AT206	63	125			
				AT207	100	200			
				AT208	160	320			
		SOP-1.27	AT21X	AT211	20	-	10/5	80	3750
				AT212	50	-			
				AT213	100	-			

# Transistor Output(DC Input)

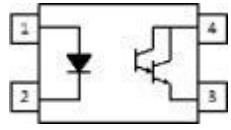
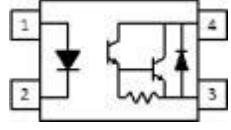
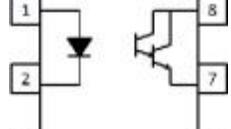
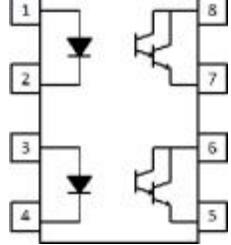
Input Type	Pin Configuration	Package Type	Part Number	CTR				B V <sub>CE0</sub> (V)	V <sub>ISO@1 min .</sub> (V <sub>rms</sub> ,
				Rank	Min.(%)	Max.(%)	@ I <sub>F</sub> /V <sub>CE</sub> (mA)(V)		
DC		DIP	AT847	-	50	600	5/5	80	5000
		SSOP-1.27	ATQ3H7	-	50	600	5/5	80	3750

# Transistor Output(DC Input, 125°C)

Input Type	Pin Configuration	Package Type	Part Number	CTR				B V <sub>CE0</sub> (V)	V <sub>I50@1min.</sub> (V <sub>rms</sub> )
				Rank	Min.(%)	Max.(%)	@ I <sub>F</sub> / V <sub>CE</sub> (mA)(V)		
DC		DIP, M, S1	AT817H	-	50	400	5/5	80	5000
				A	80	160			
				B	130	260			
				C	200	400			
		SSOP-1.27	AT3H7H	-	80	260	5/5	80	3750
				A	80	160			
				B	130	260			
		SOP-2.54	AT357NH	-	50	600	5/5	80	3750
				A	80	160			
				B	130	260			
				C	200	400			
		LSOP-2.54	AT101XH	AT1010H	50	600	5/5	80	5000
				AT1011H	100	200			
				AT1017H	80	160			
				AT1018H	100	300			
				AT1019H	200	400			

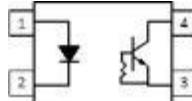
# Photo Darlington Coupler

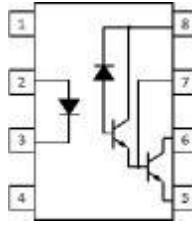
# Transistor Output(Darlington)

Input Type	Pin Configuration	Package Type	Part Number	CTR				B V <sub>CE0</sub> (V)	V <sub>ISO@1 min .</sub> (V <sub>rms</sub> ,
				Rank	Min.(%)	Max.(%)	@ I <sub>F</sub> / V <sub>CE</sub> (mA)(V)		
DC		DIP, M, S1	AT815	-	600	7500	1/2	35	5000
		SOP-2.57	AT452	-	1000	-	1/2	350	3750
		DIP, M, S1	AT852	-	1000	15000	1/2	350	5000
		DIP, M, S1	AT825	-	600	7500	1/2	40	5000

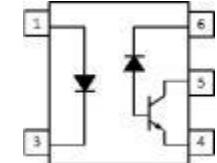
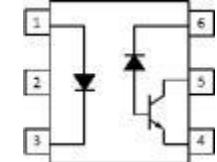
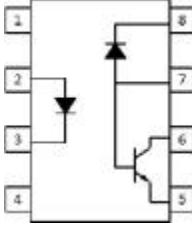
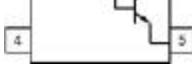
# High Speed Coupler

# High Speed Coupler(20K 、300Kbps)

Data Rate	Pin Configuration	Package Type	Part Number	CTR				$T_{on}(\mu s)$ Max.	$T_{off}(\mu s)$ Max.	$V_{ISO}@1\text{ min}$ . (V rms)
				Min.(%)	Typ.(%)	Max.(%)	@ $I_F$ (mA)			
20Kbps		DIP,M S, S1	AT2514	50	-	200	5	25	25	5000

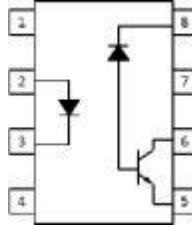
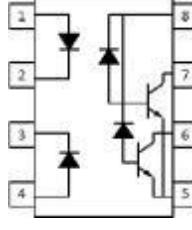
Data Rate	Pin Configuration	Package Type	Part Number	CTR				$T_{PHL}(\mu s)$ Max.	$T_{PLH}(\mu s)$ Max.	$V_{ISO}@1\text{ min}$ . (V rms)
				Min.(%)	Typ.(%)	Max.(%)	@ $I_F$ (mA)			
300Kbps		SOP-1.27	AT0700	300	2000	-	1.6	10	35	3750
			AT0701	400	2500	-	0.5	25	60	
				500	2000	-	1.6	-	-	
		DIP, M S, S1	6N138	300	2000	-	1.6	10	35	5000
			6N139	400	2500	-	0.5	25	60	
				500	2000	-	1.6	-	-	

# High Speed Coupler(1Mbps)

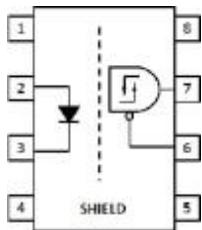
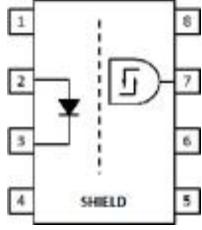
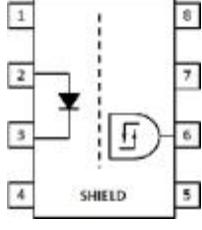
Data Rate	Pin Configuration	Package Type	Part Number	CTR				T <sub>PLH(+s)</sub> Max.	T <sub>PLH(+s)</sub> Max.	V <sub>I<sub>SO</sub></sub> @1min . (V <sub>rms</sub> ,
				Min.(%)	Typ.(%)	Max.(%)	@ I <sub>F</sub> (mA)			
1Mbps		SOP-1.27	ATM452	20	-	50	16	0.8	0.8	3750
			ATM453							
			★ATM453L	20	-	50	16	0.8	0.8	3750
		P-1.27	ATS511	20	-	-	16	1.5	1.5	5000
			AT0500	7	-	50	16	1.5	1.5	3750
		SOP-1.27	AT0501	19				0.8	0.8	
			★AT050L	7	-	50	16	2	2	3750
			6N135	7	-	50	16	1.5	1.5	5000
		DIP, M S, S1	6N136	19	-	50	16	0.8	0.8	5000
			ATW135	7	-	50	16	1.5	1.5	5000
			ATW136	19	-			0.8	0.8	

Note) ★ is Vcc pin support 3.3V.

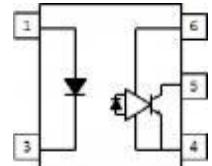
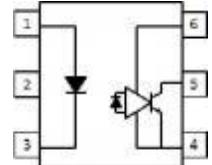
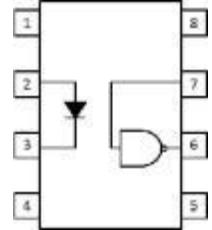
# High Speed Coupler(1Mbps)

Data Rate	Pin Configuration	Package Type	Part Number	CTR				$T_{PLH}(+s)$ Max.	$T_{PLH}(+s)$ Max.	$V_{ISO}@1\text{min}$ . (V <sub>rms</sub> )	
				Min.(%)	Typ.(%)	Max.(%)	@I <sub>F</sub> (mA)				
1Mbps		SOP-1.27	AT0452	19	-	50	16	0.8	0.8	3750	
			AT0453								
			AT4502	19	-	50	16	0.8	0.8	5000	
			AT4503								
			AT4504	25	-	60	16	0.4	0.7	5000	
		DIP, M S, S1	DIP, S	ATW4503	19	-	50	16	0.8	0.8	5000
			AT0530	7	-	50	16	1.5	1.5	3750	
			AT0531	19				0.8	0.8		
			AT2530	7	-	50	16	1.5	1.5	5000	
			AT2531	19	-			0.8	0.8		

# High Speed Coupler(5Mbps)

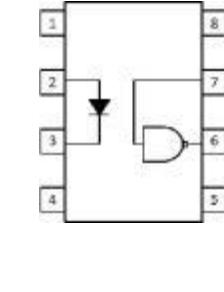
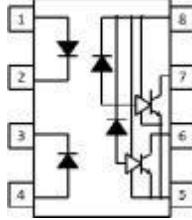
Data Rate	Pin Configuration	Package Type	Part Number	I <sub>cc(H/L)</sub> (mA) Max. @V <sub>cc</sub> =5.5V	I <sub>F</sub> (mA) Max.	T <sub>PHL(ns)</sub> Max.	T <sub>PLH(ns)</sub> Max.	V <sub>ISO</sub> @1 min.(V <sub>rms</sub> ,
5Mbps		DIP, M S, S1	AT2200					
			AT2201	4.5/6	1.6	300	300	5000
			AT2202					

# High Speed Coupler(10Mbps)

Data Rate	Pin Configuration	Package Type	Part Number	Icc(H/L) (mA) Max. @Vcc=5.5V	I <sub>F</sub> (mA) Max.	T <sub>PHL</sub> (ns) Max.	T <sub>POL</sub> (ns) Max.	V <sub>ISO</sub> @1min.(V <sub>rms</sub> )
10Mbps		SOP-1.27	ATM600	9/10	5	100	100	3750
			ATM601					
			ATM611					
		P-1.27	ATS611	13/15	5	100	100	5000
		SOP-1.27	AT0600	10/13	5	75	75	3750
			AT0601					
			AT0611					
	 DIP, M S, S1	SOP-1.27	★AT060L	10/13	5	75	75	3750
			★AT260L	10/13	5	75	75	5000

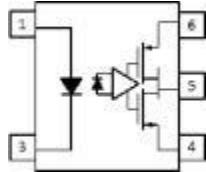
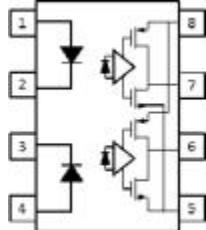
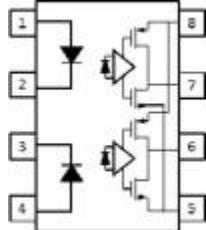
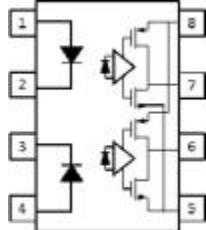
Note) ★ is Vcc pin support 3.3V.

# High Speed Coupler(10Mbps)

Data Rate	Pin Configuration	Package Type	Part Number	Icc(H/L) (mA) Max. @Vcc=5.5V	I <sub>F</sub> (mA) Max.	T <sub>PHL</sub> (ns) Max.	T <sub>PLH</sub> (ns) Max.	V <sub>ISO</sub> @1 min.( V <sub>rms</sub> ,
10Mbps		DIP, M S, S1	6N137	10/13	5	75	75	5000
		DIP、S (WB)	ATW137	10/13	5	100	100	5000
		DIP, M S, S1	AT2601	10/13	5	75	75	5000
			AT2611					
		DIP、S (WB)	ATW2601	10/13	5	100	100	5000
			ATW2611					
		SOP-1.27	AT0630	18/21	5	100	100	3750
			AT0631					
		DIP, S	AT2630	18/21	5	100	100	5000
			AT2631					

Note) WB is WIDE BODY package.

# High Speed Coupler(15Mbps)

Data Rate	Pin Configuration	Package Type	Part Number	I <sub>cc(H/L)</sub> (mA) Max. @V <sub>cc</sub> =5.5V	I <sub>F</sub> (mA) Max.	T <sub>PHL(ns)</sub> Max.	T <sub>PLH(ns)</sub> Max.	V <sub>ISO</sub> @1 min. ( V <sub>rms</sub> ,
15Mbps		SOP-1.27	★ATM80L	6/6	5	65	65	3750
			★ATM81L					
		SOP-1.27	★AT083L	8/8	5	60	60	3750
			★AT086L					

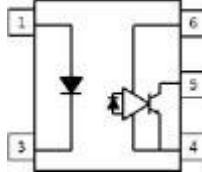
Note) ★ is V<sub>cc</sub> pin support 3.3V.



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# Intelligent Power Module

# Intelligent Power Module (1Mbps)

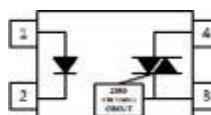
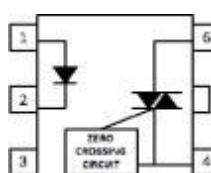
Data Rate	Pin Configuration	Package Type	Part Number	Icc(H/L) (mA) Max. @Vcc=5.5V	I <sub>TH</sub> (mA) Max.	T <sub>PHL(ns)</sub> TYP.	T <sub>PLH(ns)</sub> TYP.	V <sub>ISO</sub> @1 min. (V <sub>rms</sub> ,
1Mbps		SOP-1.27	ATM456	1.5/TBD	5	150	450	3750



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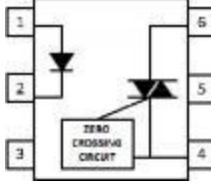
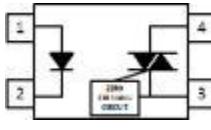
# Photo Triac

# Photo Triac(Zero Cross)

Pin Configuration	Type	Package Type	Part Number	I <sub>FT</sub> (mA)	I <sub>T(RMS)</sub> (mA)	I <sub>TSM</sub> (A)	V <sub>DRM</sub> (V)	dv/dt min.(V/μs)	V <sub>ISO</sub> @1min.(V <sub>rms</sub> )
	Zero corss	DIP, M S, S1	ATT3041	15	100	1	400	1000	5000
			ATT3042	10					
			ATT3043	5					
			ATT3061	15	100	1	600	1000	5000
			ATT3062	10					
			ATT3063	5					
			ATT3081	15	100	1	800	600	5000
			ATT3082	10					
			ATT3083	5					
	Zero corss	DIP, M S, S1	AT3031(P5)	15	100	1	250	1000	5000
			AT3032(P5)	10					
			AT3033(P5)	5					
			AT3041(P5)	15	100	1	400	1000	5000
			AT3042(P5)	10					
			AT3043(P5)	5					
			AT3061(P5)	15	100	1	600	1000	5000
			AT3062(P5)	10					
			AT3063(P5)	5					
			AT3081(P5)	15	100	1	800	600	5000
			AT3082(P5)	10					
			AT3083(P5)	5					

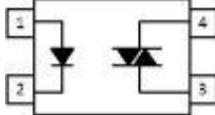
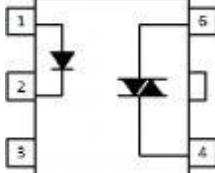
Note) The condition of I<sub>TSM</sub> is Pulse width=100us, 120pps

# Photo Triac(Zero Cross)

Pin Configuration	Type	Package Type	Part Number	$I_{FT}$ (mA)	$I_{TRMS}$ (mA)	$I_{TSM}$ (A)	$V_{DRM}$ (V)	$dv/dt$ min.(V/ $\mu$ s)	$V_{ISO}$ @1min.(V <sub>rms</sub> )
	Zero corss	DIP, M S, S1	AT3031	15	100	1	250	1000	5000
			AT3032	10					
			AT3033	5					
			AT3041	15	100	1	400	1000	5000
			AT3042	10					
			AT3043	5					
			AT3061	15	100	1	600	1000	5000
			AT3062	10					
			AT3063	5					
			AT3081	15	100	1	800	600	5000
			AT3082	10					
			AT3083	5					
	Zero corss	SOP-2.54	ATM3042	10	100	1	400	1000	3750
			ATM3043	5					
			ATM3044	3					
			ATM3062	10	100	1	600	1000	3750
			ATM3063	5					
			ATM3064	3					
			ATM3082	10	100	1	800	1000	3750
			ATM3083	5					
			ATM3084	3					

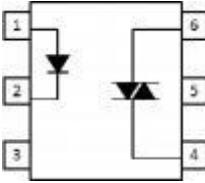
Note) The condition of  $I_{TSM}$  is Pulse width=100us, 120pps

# Photo Triac(Random Phase)

Pin Configuration	Type	Package Type	Part Number	$I_{FT}$ (mA)	$I_{TRMS}$ (mA)	$I_{TSM}$ (A)	$V_{DRM}$ (V)	$dv/dt$ min.(V/ $\mu$ s)	$V_{ISO}$ @1min. (V <sub>rms</sub> )
	Random Phase	DIP, M S, S1	ATT3021	15	100	1	400	100	5000
			ATT3022	10					
			ATT3023	5					
			ATT3051	15	100	1	600	1000	5000
			ATT3052	10					
			ATT3053	5					
	Random Phase	DIP, M S, S1	AT3011(P5)	15	100	1	250	100	5000
			AT3012(P5)	10					
			AT3013(P5)	5					
			AT3021(P5)	15	100	1	400	100	5000
			AT3022(P5)	10					
			AT3023(P5)	5					
			AT3051(P5)	15	100	1	600	1000	5000
			AT3052(P5)	10					
			AT3053(P5)	5					
			AT3071(P5)	15	100	1	800	1500	5000
			AT3072(P5)	10					
			AT3073(P5)	5					

Note) The condition of  $I_{TSM}$  is Pulse width=100us, 120pps

# Photo Triac(Random Phase)

Pin Configuration	Type	Package Type	Part Number	I <sub>FT</sub> (mA)	I <sub>T(RMS)</sub> (mA)	I <sub>TSM</sub> (A)	V <sub>DRM</sub> (V)	dv/dt min. (V/μs)	V <sub>ISO</sub> @1min. (V <sub>rms</sub> )
	Random Phase	DIP, M S, S1	AT3011	15	100	1	250	100	5000
			AT3012	10					
			AT3013	5					
			AT3020	30					
			AT3021	15	100	1	400	100	5000
			AT3022	10					
			AT3023	5					
			AT3051	15					
			AT3052	10	100	1	600	1000	5000
			AT3053	5					
			AT3071	15					
			AT3072	10					
			AT3073	5	100	1	800	1000	5000
			ATM3022	10					
			ATM3023	5					
			ATM3024	3					
			ATM3052	10		100	1	400	100
			ATM3053	5					
			ATM3054	3					

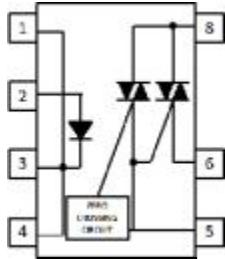
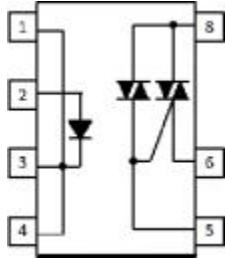
Note) The condition of I<sub>TSM</sub> is Pulse width=100us, 120pps



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# Power Triac

# Power Triac

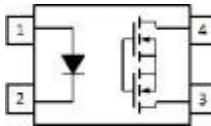
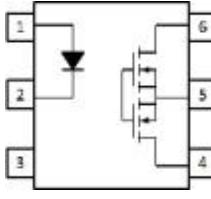
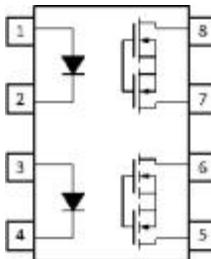
Pin Configuration	Type	Package Type	Part Number	I <sub>FT</sub> (mA)	I <sub>T(RMS)</sub> (A)	I <sub>TSM</sub> (A)	V <sub>DRM</sub> (V)	dV/dt min. (V/μs)	V <sub>ISO</sub> (V <sub>RMS</sub> )
	Zero Cross	DIP, M, S1	ATR0213	10	0.3	3	600	200	5000
			ATR1213		0.6	6			
			ATR2213		0.9	9			
			ATR3213		1.2	12			
	Random Phase	DIP, M, S1	ATR0223	10	0.3	3	600	200	5000
			ATR1223		0.6	6			
			ATR2223		0.9	9			
			ATR3223		1.2	12			



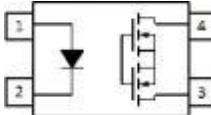
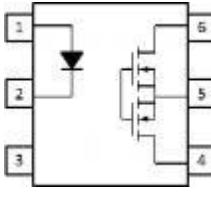
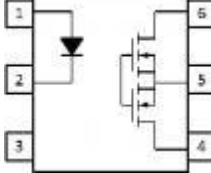
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# Solid State Relay

# Solid State Relay

Pin Configuration	Package Type	Part Number	I <sub>L</sub> (mA) Max.	V <sub>L</sub> (V) Max.	R <sub>d(on)</sub> (Ω) Max.	I <sub>Lpeak</sub> (A) Max.	I <sub>F(on)</sub> (mA) Max.	I <sub>F(off)</sub> (mA) Min.	T <sub>on</sub> (ms) Max.	T <sub>off</sub> (ms) Max.
	DIP, M S1	AT406A	550	60	2.5	1.2	5	0.4	3	0.5
		AT425A	180	250	15	0.5				
		AT440A	120	400	30	0.3				
		AT460A	50	600	70	0.15				
	SOP Mini-Flat	ATM425A	180	250	15	0.5	5	0.2	0.5	0.5
		ATM440A	120	400	30	0.3				
		ATM460A	50	600	70	0.15				
	DIP, S1	AT606A	550	60	2.5	1.2	3	0.4	3	0.5
		AT625A	180	250	15	0.5				
		AT640A	120	400	30	0.3				
		AT660A	50	600	70	0.15				
	DIP, S1	AT840A	120	400	30	0.3	5	0.4	3	0.5
		AT860A	50	600	70	0.15				

# Solid State Relay( $I_L = 1A$ Up)

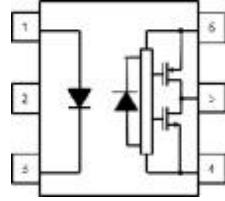
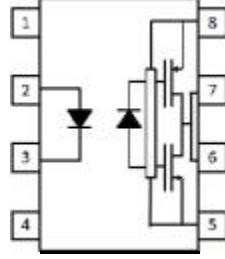
Pin Configuration	Package Type	Part Number	$I_L$ (A) Max.	$V_L$ (V) Max.	$R_{d(on)}$ ( $\Omega$ ) Max.	$I_{Lpeak}$ (A) Max.	$I_{F(on)}$ (mA) Max.	$I_{F(off)}$ (mA) Min.	$T_{on}$ (ms) Max.	$T_{off}$ (ms) Max.
	SOP Mini-Flat	ATM406A	1	60	2.5	2	5	0.1	5	0.5
	DIP, S1	AT606A3	2.5	60	1	-	5	0.4	5	0.5
		AT603A5	5	30	1	-				



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# IGBT Gate Driver

# IGBT Gate Driver

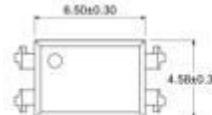
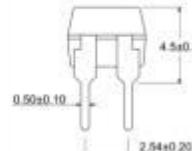
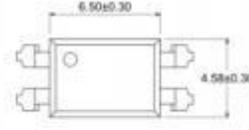
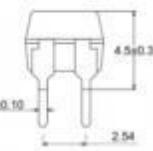
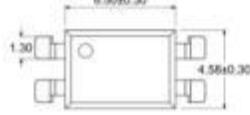
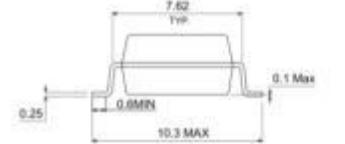
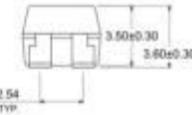
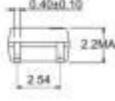
$I_{OP}$ (A)	Pin Configuration	Package Type	Part Number	$I_{CC}$ (mA) Max.	$I_{FLH}$ (mA) Max.	CMTI (kV/ $\mu$ s) Min.	$T_{PHL}$ (ns) Max.	$T_{PHL}$ (ns) Max.	$V_{ISO}$ (V RMS,
2.5		P	ATS3120	3.2	5	25	300	300	5000
0.6			ATS3140			15	400	400	
1			ATS3150			15	400	400	
2.5		DIP, S1	AT3120	3.2	5	25	300	300	5000



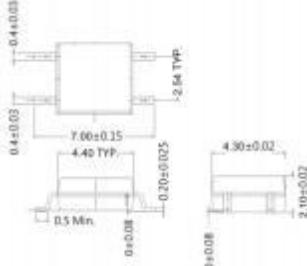
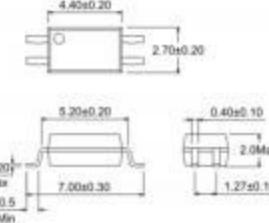
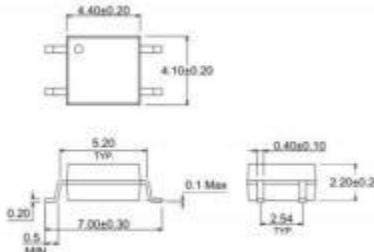
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# Package Type

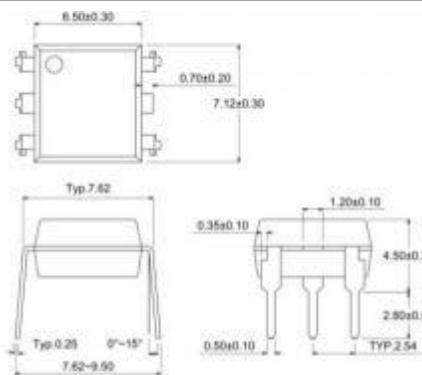
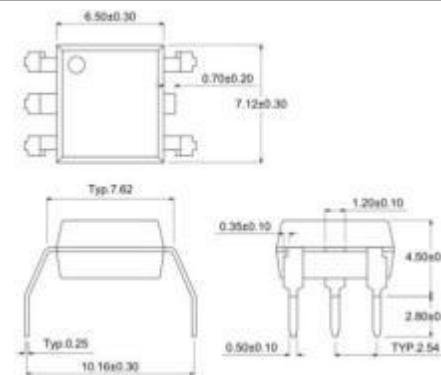
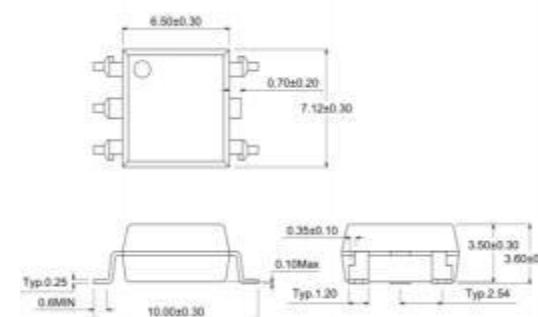
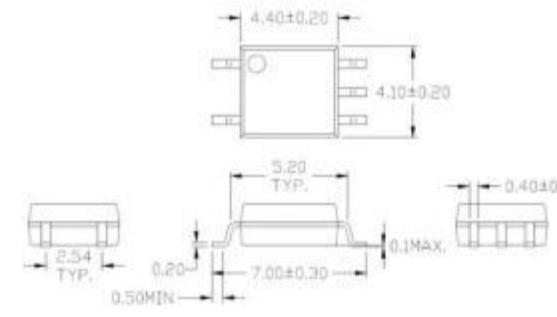
# 4PIN Package Type(1/2)

DIP Type	M Type
   (Patch=2.54mm)	   (Patch=2.54mm)
S1 Type	LSOP-2.54 Type
   (Patch=2.54mm)	   (Patch=2.54mm)

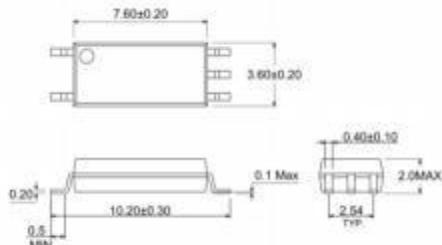
# 4PIN Package Type(1/2)

SOP-2.54, Mini-Flat Type	SSOP-1.27 Type
 (Patch=2.54mm)	 (Patch=1.27mm)
SOP-2.54 Type	
 (Patch=2.54mm)	

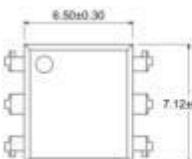
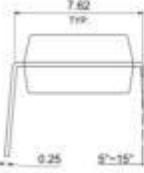
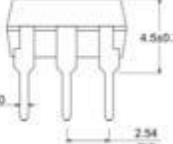
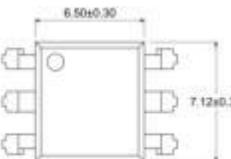
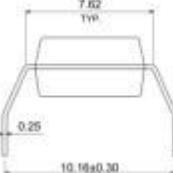
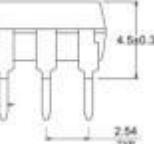
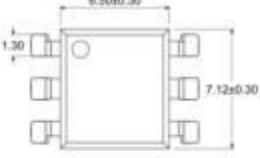
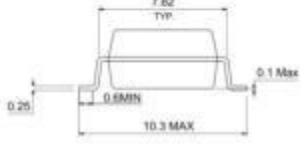
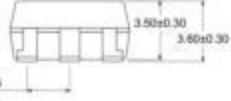
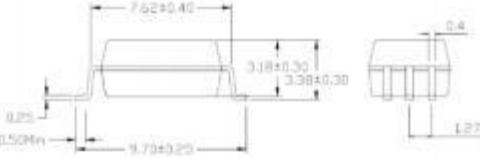
# 5PIN Package Type(1/2)

DIP Type	M Type
 <p>(Patch=2.54mm)</p>	 <p>(Patch=2.54mm)</p>
S1 Type	SOP-1.27 Type
 <p>(Patch=2.54mm)</p>	 <p>(Patch=1.27mm)</p>

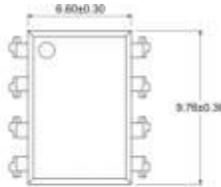
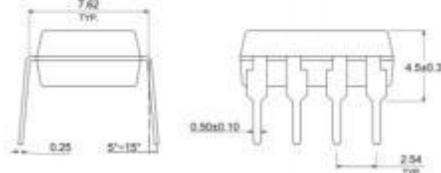
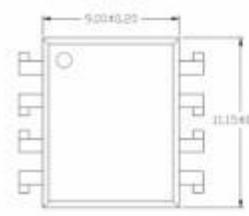
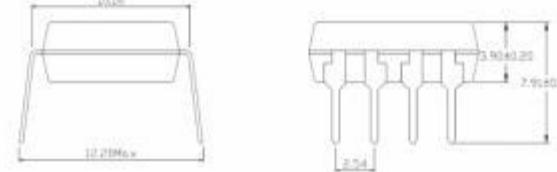
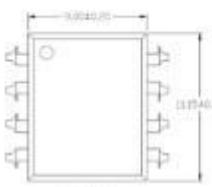
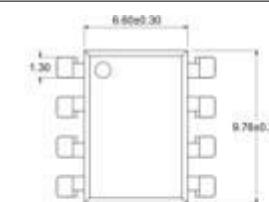
# 5PIN Package Type(2/2)

LSOP-1.27 Type	
 <p>(Patch=1.27mm)</p>	

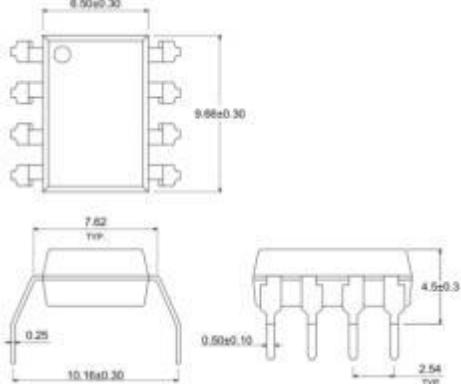
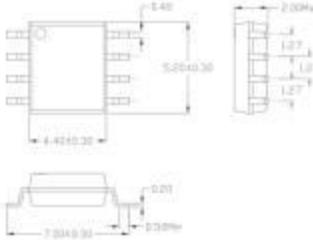
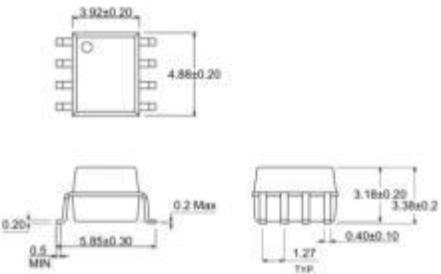
# 6PIN Package Type

DIP Type	M Type
   (Patch=2.54mm)	   (Patch=2.54mm)
S1 Type	P-1.27 Type
   (Patch=2.54mm)	   (Patch=1.27mm)

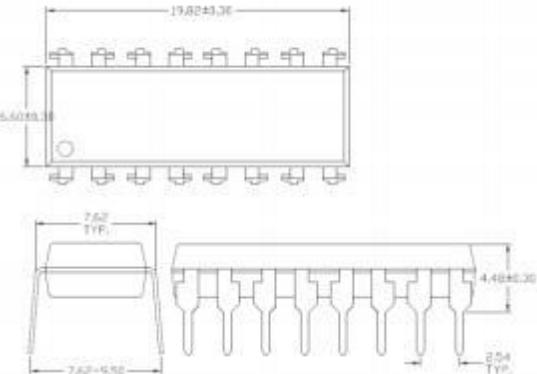
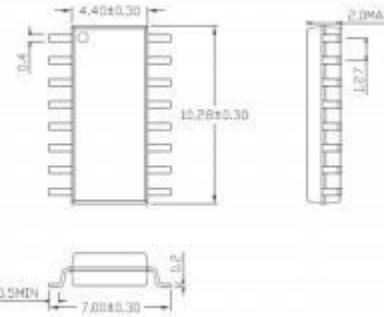
# 8PIN Package Type(1/2)

DIP Type	DIP(WIDE BODY) Type
  (Patch=2.54mm)	  (Patch=2.54mm)
S(WIDE BODY) Type	S1 Type
  (Patch=2.54mm)	  (Patch=2.54mm)

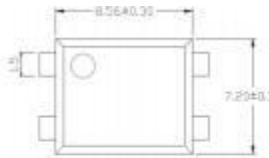
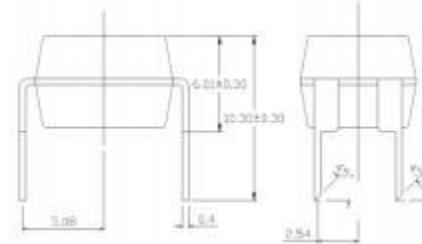
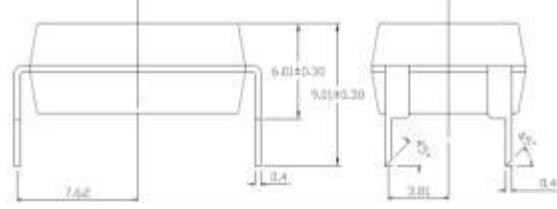
# 8PIN Package Type(2/2)

M Type	SSOP-1.27 Type
 <p>(Patch=2.54mm)</p>	 <p>(Patch=1.27mm)</p>
SOP-1.27 Type	
 <p>(Patch=1.27mm)</p>	

# 16PIN Package Type

DIP Type	SSOP-1.27 Type
 <p>(Patch=2.54mm)</p>	 <p>(Patch=1.27mm)</p>

# CNY64/65 Package Type

CNY64 Type	CNY65 Type
  (Patch=5.08mm)	  (Patch=5.08mm)