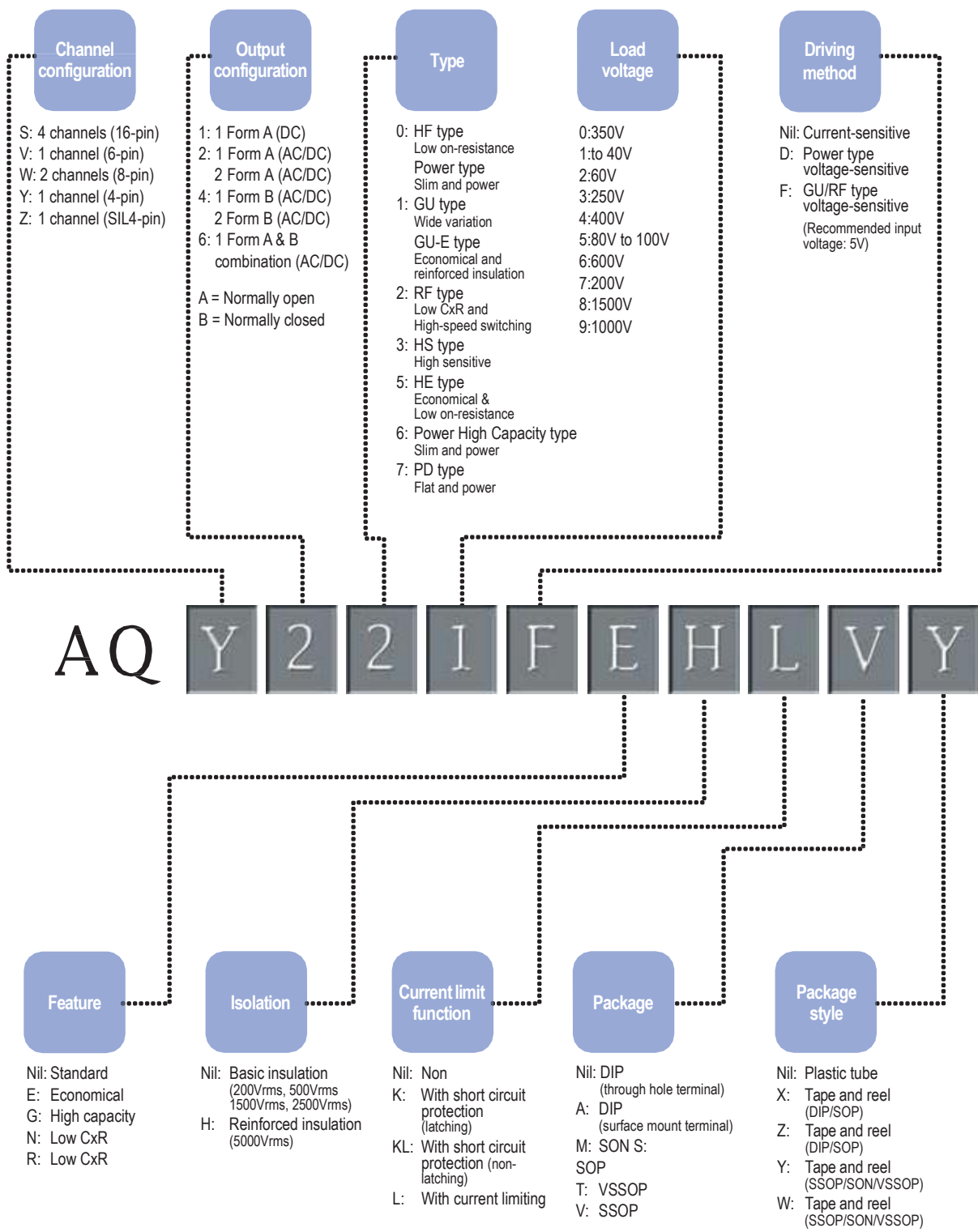


Product Key



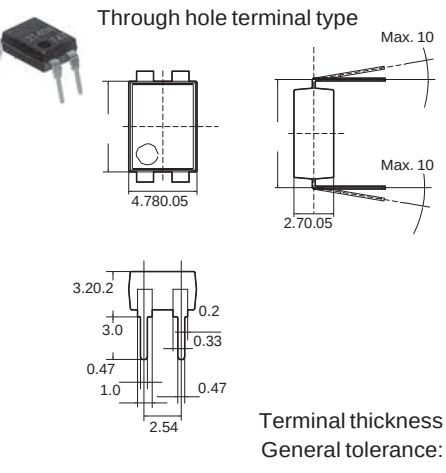
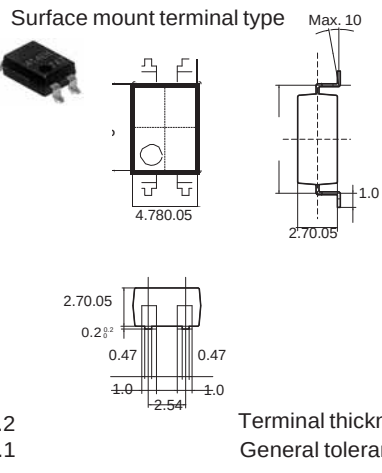
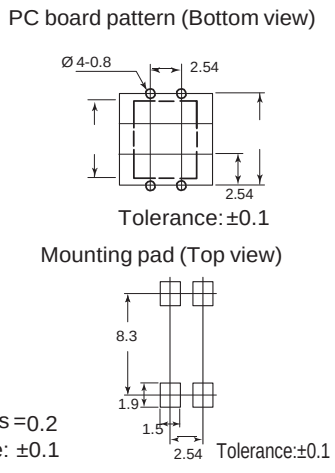
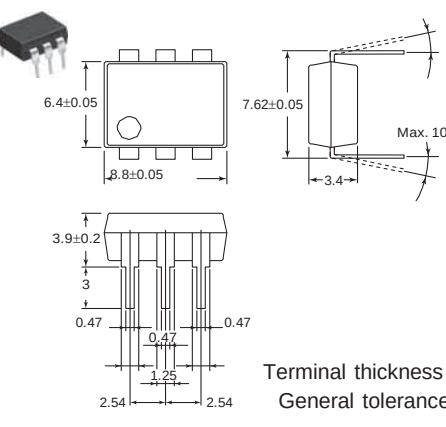
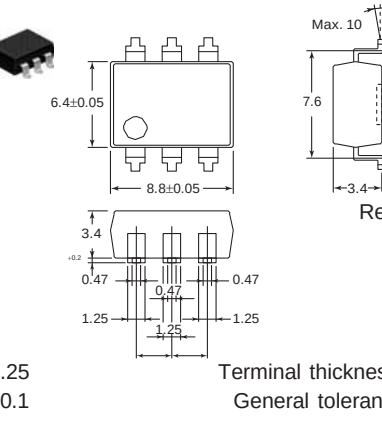
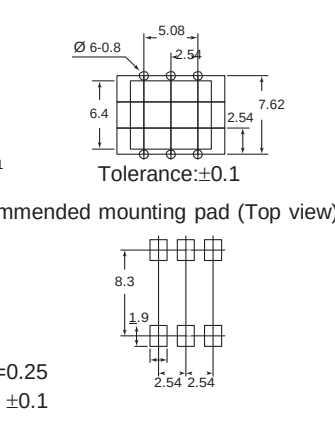
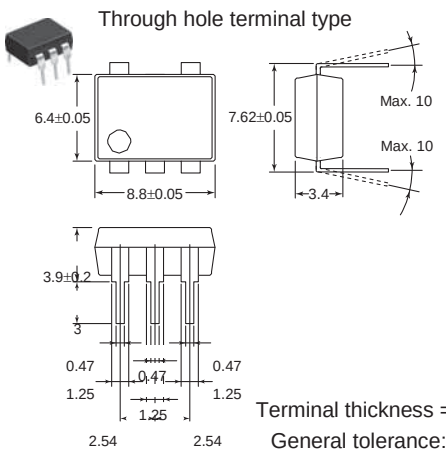
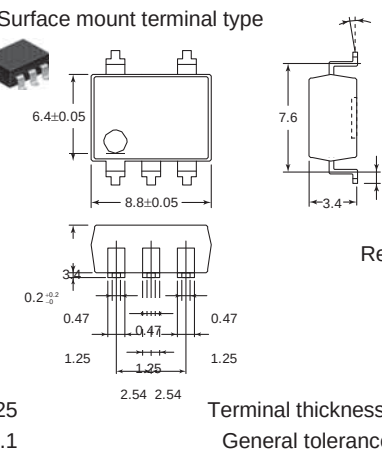
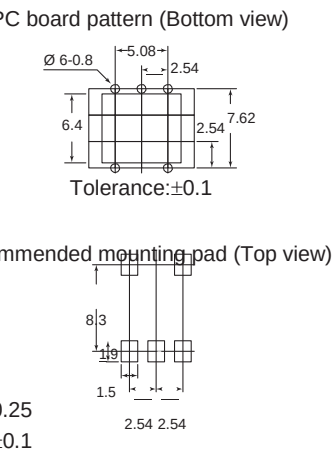
Note: Valid only for combinations of products listed in the catalog.
(Please inquire regarding combinations with products not listed in the catalog.)

PhotoMOS Relays: Popular Type Selection Table

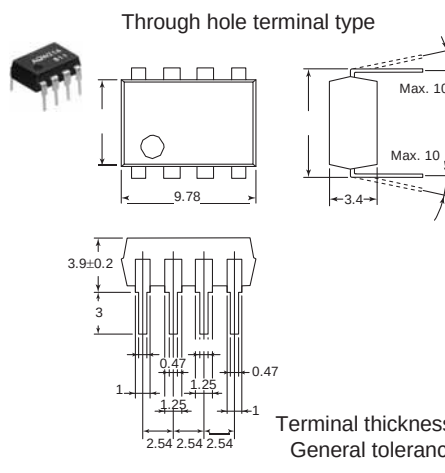
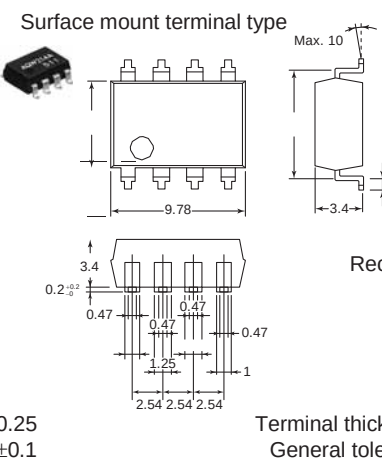
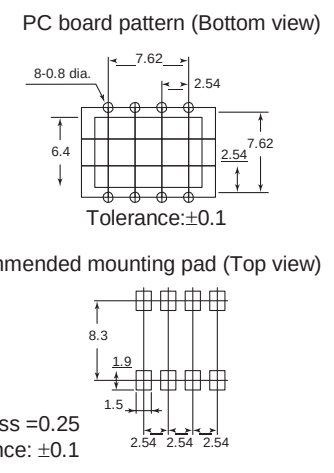
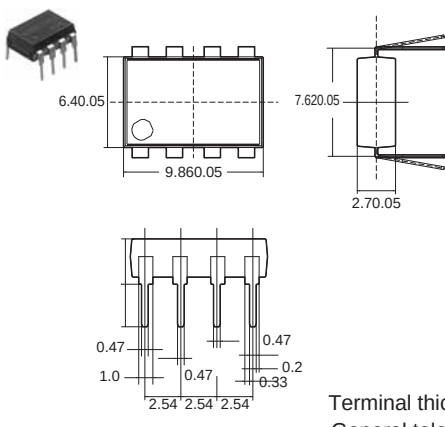
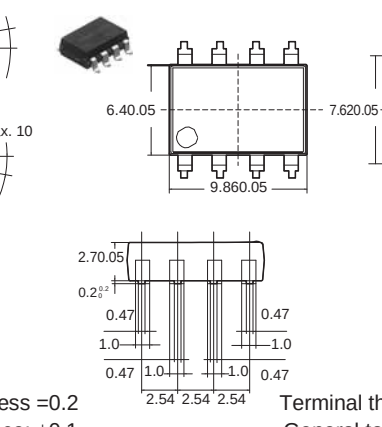
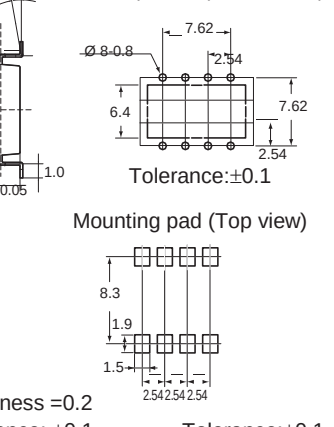
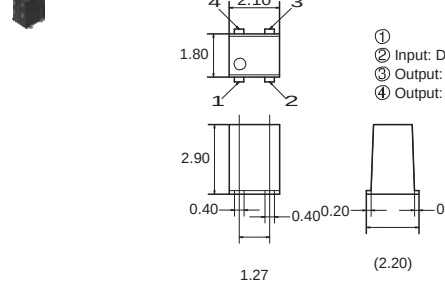
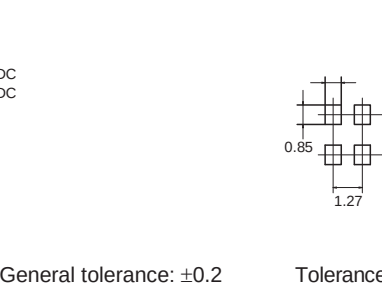
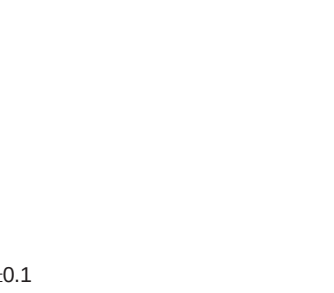
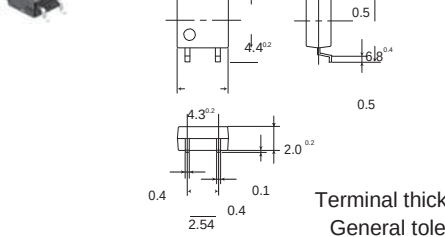
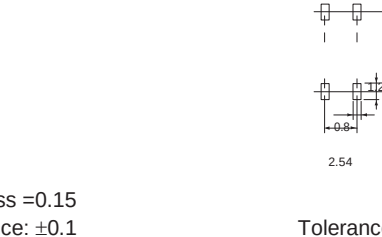
	Type ¹⁾	Package	Contact	Voltage (V) ²⁾	Current (A) ²⁾	R _{on} ³⁾ (Ω)	Info.
	AQY212EH(A)	DIP4	1a	60	0.55	0.85	General use
	AQY212GH(A)			60	1.1	0.34	
	AQY210EH(A)			350	0.13	18.0	
	AQY214EH(A)			400	0.12	26.0	
	AQY211G2S	SOP4		40	1.6	0.1	
	AQY212S			60	0.5	0.83	
	AQY212GS			60	1.0	0.34	
	AQY212G2S			60	1.25	0.2	
	AQY210S	SOP4	350	0.12	17.0		
	AQY214S		400	0.1	25.0		
	AQY232S		SOP4	60	0.5	0.85	
	AQY230S			350	0.12	19.0	
AQY234S	SOP4	400	0.1	27.0			
AQY210KS		1a	350	0.12	23.0	Short circuit protected	
	AQV112KL(A)	DIP6	1a	60	0.5	0.55	General use
	AQV210EH	DIP6		350	0.4	23.0	
	AQV214EH		400	0.3	30.0		
	AQW210EH		2a	350	0.36	18.0	
	AQW212EH			60	1.5	0.83	
	AQW216EH	600		0.12	52.0		
	AQW210S	SOP8		2a	350	0.3	
	AQW212S		60		1.5	0.83	
	AQW214S		2b	400	0.24	30.0	
	AQW414S			400	0.24	26.0	
	AQV251G	DIP6	1a	30	3.5	0.035	High power
	AQV252G			60	2.5	0.08	
	AQV256H(A)			600	0.4	20.0	
	AQV259H(A)			1,000	0.03	85.0	
	AQV258H(A)	1,500		0.02	345.0		
		AQV252G2S		SOP6	50	3.0	
AQV255GS		80	1.25		0.09		
	AQY221R2T	VSSOP	1a	40	0.25	0.8	
	AQY221N2T			40	0.12	9.5	
	AQY221N3T			25	0.15	5.5	
	AQY221R6T			30	0.8	0.18	
	AQY221R2M	SON		40	0.25	0.8	
	AQY221N2M			40	0.12	9.5	
	AQY221N3M			25	0.15	5.5	
	AQY221N2V	SSOP		40	0.12	9.5	
	AQY221R2V			40	0.25	0.75	
	AQY221N3V			25	0.15	5.5	
	AQY221R4V			40	0.5	0.55	
	AQY221R6V			30	1.0	0.18	
				AQY221N2S	SOP4	40	0.12
AQY225R2S		80	0.15	10.5			
	AQZ102	SIL4	1a	60	4.0	0.05	DC only
	AQZ192			60	10.0	0.008	
	AQZ202	SIL4	1b	60	3.0	0.11	AC & DC
	AQZ205			100	2.0	0.23	
	AQZ204			400	0.5	2.0	
	AQZ404			400	0.5	2.8	

¹⁾ A = SMD type
²⁾ Maximum value (DC or peak AC)
³⁾ Typical value

PhotoMOS Relay Dimensions

Type	Dimensions		
AQY21 AQY41 Series			
	Terminal thickness = 0.2 General tolerance: ±0.1	Terminal thickness = 0.2 General tolerance: ±0.1	Tolerance: ±0.1
AQV10 AQV11 AQV21 AQV22 AQV23 AQV25 AQV45 Series			
	Terminal thickness = 0.25 General tolerance: ±0.1	Terminal thickness = 0.25 General tolerance: ±0.1	Tolerance: ±0.1
APV112 2 Series			
	Terminal thickness = 0.25 General tolerance: ±0.1	Terminal thickness = 0.25 General tolerance: ±0.1	Tolerance: ±0.1

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Type	Dimensions		
AQW21 AQW25 AQW41 AQW45 AQW65 Series			
	Terminal thickness = 0.25 General tolerance: ±0.1	Terminal thickness = 0.25 General tolerance: ±0.1	Tolerance: ±0.1
AQW21EH AQW21HL AQW41EH AQW61EH Series			
	Terminal thickness = 0.2 General tolerance: ±0.1	Terminal thickness = 0.2 General tolerance: ±0.1	Tolerance: ±0.1
AQY22 (VSSOP) Series			
	General tolerance: ±0.2	General tolerance: ±0.2	Tolerance: ±0.1
APV11(SOP) APV21(SOP) AQY21(SOP) AQY22(SOP) AQY23(SOP) AQY41(SOP) Series			
	Terminal thickness = 0.15 General tolerance: ±0.1	Terminal thickness = 0.15 General tolerance: ±0.1	Tolerance: ±0.1

PhotoMOS Relay Dimensions

Type	Dimensions	
AQV22(SOP) AQV25(SOP) AQV41(SOP)	Recommended mounting pad (Top view)	
AQY22 (SON) Series	Recommended mounting pad (Top view)	
APV21 AQY22 (SSOP) Series	Recommended mounting pad (Top view)	
AQW21(SOP) AQW41(SOP) AQW61(SOP)	Recommended mounting pad (Top view)	
AQS22(SOP) Series	Recommended mounting pad (Top view)	

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Type	Dimensions		
AQY27 Series	Through hole terminal type	Surface mount terminal type	PC board pattern (Bottom view)
AQZ10 AQZ20 AQZ40 Series			PC board pattern (Bottom view)
AQZ26 Series			Mounting hole location (Bottom view)
AQZ19			PC board pattern (Bottom view)

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
□ AQY211G2S	1:1  4.3 x 4.4 x 2.1mm	High capacity type	40V	• 1.6A / 4.0A 1.6A
□ AQY212G2S		High capacity type	60V	• 1.25A / 3.0A 1.25A
□ AQY212GS		High capacity type	60V	• 1.0A / 3.0A 1A
□ AQY212S			60V	• 0.5A / 1.0A 0.5A
AQY210LS		Current limiting	350V	• 0.12A / - 0.18A (Output limit current [typ.]) 0.12A
□ AQY210S		PSpice	350V	• 0.12A / 0.3A 0.12A
□ AQY210KS		Short circuit protected	350V	• 0.12A / - 0.2A (Cut off current [typ.]) 0.12A
□ AQY214S		PSpice	400V	• 0.1A / 0.24A 0.1A

Output		Input		Switching speed (I LED = 5mA)		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
0.1/0.15Ω	180pF	3.0mA	0.2mA	3.0ms	0.5ms	1,500V AC	C-UL, UL, VDE 
0.2/0.5Ω	180pF	3.0mA	0.3mA	5.0ms	0.5ms	1,500V AC	C-UL, UL, VDE 
0.34/0.7Ω	220pF	3.0mA	0.3mA	5.0ms	0.5ms	1,500V AC	C-UL, UL, VDE 
0.83/2.5Ω	80pF	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	BSI, C-UL, UL 
20/25Ω	45pF	3.0mA	0.4mA	2.0ms	1.0ms	1,500V AC	BSI, C-UL, UL 
17/25Ω	45pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	BSI, C-UL, UL 
23.5/35Ω	42pF	3.0mA	0.3mA	2.0ms	1.0ms	1,500V AC	BSI, C-UL, UL 
25/35Ω	45pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	BSI, C-UL, UL 

Type = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
AQY232S	1:1  4.3 x 4.4 x 2.1mm	Sensitive type	60V	• 0.5A / 1.5A 0.5A
AQY230S		Sensitive type	350V	• 0.12A / 0.3A 0.12A
AQY234S		Sensitive type	400V	• 0.1A / 0.24A 0.1A
AQY211EH	1:1  DIP : 4.78 x 6.4 x 3.2mm SMD: 4.78 x 6.4 x 2.9mm		30V	• 1.0A / 3.0A 1A
AQY212EH			60V	• 0.55A / 1.5A 0.55A
AQY212GH		High capacity type	60V	• 1.1A / 3.0A 1.1A
AQY214EH			400V	• 0.12A / 0.3A 0.12A
AQY210EH			350V	• 0.13A / 0.4A 0.13A
AQY210HL		Current limiting	350V	• 0.12A / - 0.18A (Output limit current [typ.]) 0.12A
AQY216EH			600V	• 0.05A / 0.15A 0.05A

Output		Input		Switching speed (I LED = 5mA)		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
0.85/2.5Ω	0.8pF	0.5mA	0.1mA	5.0ms	2.0ms	1,500V AC	C-UL, UL, VDE
19/25Ω	0.8pF	0.5mA	0.1mA	5.0ms	2.0ms	1,500V AC	C-UL, UL, VDE
27/35Ω	0.8pF	0.5mA	0.1mA	5.0ms	2.0ms	1,500V AC	C-UL, UL, VDE
0.25/0.5Ω	240pF	3.0mA	0.4mA	5.0ms	1.0ms	5,000V AC	BSI, C-UL, UL
0.85/2.5Ω	80pF	3.0mA	0.4mA	4.0ms	1.0ms	5,000V AC	BSI, C-UL, UL
0.34/0.7Ω	220pF	3.0mA	0.3mA	5.0ms	0.5ms	5,000V AC	C-UL, UL, VDE
26/35Ω	45pF	3.0mA	0.4mA	2.0ms	1.0ms	5,000V AC	BSI, C-UL, UL
18/25Ω	45pF	3.0mA	0.4mA	2.0ms	1.0ms	5,000V AC	BSI, C-UL, UL
20/25Ω	45pF	3.0mA	0.4mA	2.0ms	1.0ms	5,000V AC	BSI, C-UL, UL
52/120Ω	35pF	3.0mA	0.4mA	2.0ms	1.0ms	5,000V AC	BSI, C-UL, UL

Type = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
AQV212S	1:1  6.3 x 4.4 x 2.1mm	PSpice	60V	• 0.5A / 1.0A 0.5A
AQV215S		PSpice	100V	• 0.3A / 0.9A 0.3A
AQV217S		PSpice	200V	• 0.16A / 0.48A 0.16A
AQV210S		PSpice	350V	• 0.12A / 0.3A 0.12A
AQV214S		PSpice	400V	• 0.1A / 0.3A 0.1A
AQV216S		PSpice	600V	• 0.04A / 0.12A 0.04A

Output		Input		Switching speed (I LED = 5mA)		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
0.83/2.5Ω	150pF	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	C-UL, UL
2.3/4.0Ω	110pF	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	C-UL, UL
11/15Ω	70pF	3.0mA	0.4mA	1.0ms	0.2ms	1,500V AC	C-UL, UL
23/35Ω	45pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL
30/50Ω	45pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL
70/120Ω	45pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL

Type = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
AQV212	1:1  DIP : 8.8 x 6.4 x 3.9mm SMD: 8.8 x 6.4 x 3.6mm	PSpice	60V	• 0.55A / 1.2A 0.55A
AQV252G		High capacity type	60V	• 2.5A / 6.0A 2.5A
AQV251G		High capacity type	30V	• 3.5A / 6.0A 3.5A
AQV252G2S	1:1  6.3 x 4.4 x 2.0mm	High capacity type	50V	• 3.0A / 6.0A 3A
AQV255GS		High capacity type	80V	• 1.25A / 2.5A 1.25A
AQV215	1:1  DIP : 8.8 x 6.4 x 3.9mm SMD: 8.8 x 6.4 x 3.6mm	PSpice	100V	• 0.32A / 0.96A 0.32A
AQV217		PSpice	200V	• 0.18A / 0.54A 0.18A
AQV210		PSpice	350V	• 0.13A / 0.4A 0.13A

Output		Input		Switching speed (I LED = 5mA)		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
0.83/2.5Ω	150pF	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	C-UL, UL
0.08/0.12Ω	240pF	3.0mA	0.2mA	5.0ms	0.5ms	1,500V AC	C-UL, UL, VDE
0.035/0.08Ω	350pF	3.0mA	0.2mA	5.0ms	0.5ms	1,500V AC	C-UL, UL, VDE
0.04/0.07Ω	360pF	3.0mA	0.2mA	5.0ms	0.5ms	1,500V AC	C-UL, UL, VDE
0.09/0.15Ω	300pF	3.0mA	0.2mA	5.0ms	0.5ms	1,500V AC	C-UL, UL, VDE
2.3/4.0Ω	110pF	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	C-UL, UL
11/15Ω	70pF	3.0mA	0.4mA	1.0ms	0.2ms	1,500V AC	C-UL, UL
23/35Ω	45pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL

Type = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
AQV210E	1:1  DIP : 8.8 x 6.4 x 3.9mm SMD: 8.8 x 6.4 x 3.6mm		350V	• 0.13A / 0.4A 0.13A
AQV210EH			350V	• 0.13A / 0.4A 0.13A
AQV214		PSpice	400V	• 0.12A / 0.3A 0.12A
AQV214E			400V	• 0.12A / 0.3A 0.12A
AQV214EH			400V	• 0.12A / 0.3A 0.12A
AQV214H			400V	• 0.12A / 0.3A 0.12A
AQV216		PSpice	600V	• 0.05A / 0.15A 0.05A
AQV101			40V DC	• 0.7A / 1.8A 0.7A
AQV201			40V	• 0.5A / 1.8A 0.5A
AQV251			40V	• 0.5A / 1.8A 0.5A
AQV102			60V DC	• 0.6A / 1.5A 0.6A
AQV202			60V	• 0.4A / 1.5A 0.4A

Output		Input		Switching speed (I LED = 5mA)		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
23/35Ω	45pF	3.0mA	1.0mA	2.0ms	1.0ms	1,500V AC	C-UL, UL
23/35Ω	45pF	3.0mA	0.4mA	2.0ms	1.0ms	5,000V AC	BSI, C-UL, UL
30/50Ω	45pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL
30/50Ω	45pF	3.0mA	0.3mA	2.0ms	1.0ms	1,500V AC	BSI, C-UL, UL
30/50Ω	45pF	3.0mA	0.4mA	2.0ms	1.0ms	5,000V AC	BSI, C-UL, UL
30/50Ω	45pF	3.0mA	0.4mA	0.8ms	0.2ms	5,000V AC	BSI, C-UL, UL
70/120Ω	45pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL
0.3/0.5Ω	600pF	5.0mA	0.8mA	1.0ms	1.0ms	1,500V AC	C-UL, UL
0.6/1Ω	350pF	5.0mA	0.8mA	1.0ms	1.0ms	1,500V AC	C-UL, UL
0.6/1.0Ω	350pF	3.0mA	0.4mA	3.0ms	0.2ms	1,500V AC	C-UL, UL
0.37/0.7Ω	600pF	5.0mA	0.8mA	1.0ms	1.0ms	1,500V AC	C-UL, TÜV, UL
0.74/1.4Ω	350pF	5.0mA	0.8mA	1.0ms	1.0ms	1,500V AC	C-UL, TÜV, UL

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
AQV252	1:1  DIP : 8.8 x 6.4 x 3.9mm SMD: 8.8 x 6.4 x 3.6mm		60V	• 0.4A / 1.5A 
□ AQV112KL		Short circuit protected	60V DC	• 0.5A / - 
AQV255			100V	• 0.35A / 1.0A 
AQV257			200V	• 0.25A / 0.75A 
AQV103			250V DC	• 0.3A / 0.6A 
AQV203			250V	• 0.2A / 0.6A 
AQV253			250V	• 0.2A / 0.6A 

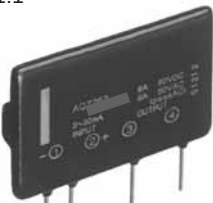
Output		Input		Switching speed (I LED = 5mA)		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
0.74/1.4Ω	350pF	3.0mA	0.4mA	1.4ms	0.2ms	1,500V AC	C-UL, UL 
0.55/2Ω	300pF	10mA	0.3mA	2.0ms	1.0ms	1,500V AC	C-UL, UL, VDE 
1.8/2.5Ω	350pF	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	C-UL, UL 
2.6/4.0Ω	170pF	3.0mA	0.4mA	3.0ms	0.2ms	1,500V AC	C-UL, UL 
2.7/4Ω	300pF	5.0mA	0.8mA	1.0ms	1.0ms	1,500V AC	C-UL, UL 
5.5/8Ω	170pF	5.0mA	0.8mA	1.0ms	1.0ms	1,500V AC	C-UL, UL 
5.5/8.0Ω	170pF	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	C-UL, UL 

Type = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
AQV253H	1:1  DIP : 8.8 x 6.4 x 3.9mm SMD: 8.8 x 6.4 x 3.6mm		250V	• 0.2A / 0.6A 0.2A
AQV104			400V DC	• 0.18A / 0.5A 0.18A
AQV204			400V	• 0.15A / 0.5A 0.15A
AQV234		Sensitive type	400V	• 0.12A / 0.3A 0.12A
AQV254			400V	• 0.15A / 0.5A 0.15A
AQV254H			400V	• 0.15A / 0.5A 0.15A
AQV256H			600V	• 0.13A / 0.4A 0.13A
AQV259			1,000V	• 0.03A / 0.09A 0.03A
AQV258			1,500V	• 0.02A / 0.06A 0.03A

Output		Input		Switching speed (I LED = 5mA)		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
5.5/8Ω	170pF	3.0mA	0.4mA	4.0ms	0.2ms	5,000V AC	BSI, C-UL, UL
6.3/8Ω	300pF	5.0mA	0.8mA	1.0ms	1.0ms	1,500V AC	C-UL, TÜV, UL
12.4/16Ω	170pF	5.0mA	0.8mA	1.0ms	1.0ms	1,500V AC	C-UL, TÜV, UL
30/50Ω	45pF	0.31mA	0.1mA	2.0ms	1.0ms	1,500V AC	CSA, C-UL, TÜV, UL
12.4/16Ω	170pF	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	C-UL, UL
12.4/16Ω	170pF	3.0mA	0.4mA	3.0ms	0.2ms	5,000V AC	BSI, C-UL, UL
20/30Ω	70pF	3.0mA	0.4mA	3.0ms	0.2ms	5,000V AC	C-UL, UL, VDE
80/200Ω	80pF	3.0mA	0.4mA	1.0ms	0.2ms	1,500V AC	C-UL, UL
345/500Ω	80pF	3.0mA	0.4mA	1.0ms	0.2ms	1,500V AC	C-UL, UL, VDE

Type = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
AQZ102	1:1  21 x 3.5 x 12.5mm		60V DC	• 4.0A / 9.0A 4.0A
AQZ105			100V DC	• 2.6A / 6.0A 2.6A
AQZ107			200V DC	• 1.3A / 3.0A 1.3A
AQZ104			400V DC	• 0.7A / 1.5A 0.7A
AQZ262	1:1  43 x 9 x 32mm		60V	• 6.0A / 10.0A 6.0A
AQZ192	1:1  24.5 x 4.5 x 20.5mm	DC high capacity	60V	• 10.0A / 30.0A 10.0A
AQZ197		DC high capacity	200V	• 5.0A / 15.0A 5.0A

Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
0.05/0.09Ω	1700pF	3.0mA	0.4mA	5.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.081/0.17Ω	1700pF	3.0mA	0.4mA	5.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.34/0.55Ω	900pF	3.0mA	0.4mA	5.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
1.06/1.6Ω	900pF	3.0mA	0.4mA	5.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.036/0.05Ω	1400pF	3.0mA	0.4mA	10.0ms	3.0ms	1,500V AC	C-UL, UL, VDE 
0.008/0.015Ω	1800pF	3.0mA	0.2mA	3.0ms	1.0ms	3,000V AC	C-UL, UL, VDE 
0.031/0.05Ω	2600pF	3.0mA	0.2mA	3.0ms	1.0ms	3,000V AC	

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
AQZ202	1:1  21 x 3.5 x 12.5mm		60V	• 3.0A / 9.0A 3.0A
AQZ205			100V	• 2.0A / 6.0A 2.0A
AQZ207			200V	• 1.0A / 3.0A 1.0A
AQZ204			400V	• 0.5A / 1.5A 0.5A
AQY212FG2S	1:1  4.30 x 4.40 x 2.10mm	Built-in resistor	60V	• 1.25A / 3.0A 1.25A
AQZ264	1:1  43 x 9 x 32mm		400V	• 1.0A / 3.0A 1.0A
AQY272	1:1  DIP : 9.3 x 8.8 x 3.9mm SMD: 9.3 x 8.8 x 3.7mm		60V	• 2.0A / 6.0A 2.0A
AQY275			100V	• 1.3A / 4.0A 1.3A
AQY277			200V	• 0.65A / 2.0A 0.65A
AQY274			400V	• 0.35A / 1.0A 0.35A

Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
0.11/0.18Ω	1400pF	3.0mA	0.4mA	5.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.23/0.34Ω	1400pF	3.0mA	0.4mA	5.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.7/1.1Ω	600pF	3.0mA	0.4mA	5.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
2.1/3.2Ω	600pF	3.0mA	0.4mA	5.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.2/0.5Ω	150pF	Operate volt- age V _{Fon} (max.) 4.0V	Turn off volt- age V _{Foff} (min.) 0.8V	5.0ms	0.5ms	500V AC	C-UL, UL, VDE 
1.0/1.4Ω	600pF	3.0mA	0.4mA	10.0ms	3.0ms	1,500V AC	C-UL, UL, VDE 
0.11/0.18Ω	1400pF	3.0mA	0.4mA	5.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.23/0.34Ω	1400pF	3.0mA	0.4mA	5.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.7/1.1Ω	600pF	3.0mA	0.4mA	5.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
2.1/3.2Ω	600pF	3.0mA	0.4mA	5.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
AQZ102D	1:1  21 x 3.5 x 12.5mm	Input voltage sensitive	60V DC	• 3.6A / 9.0A 3.6A
AQZ105D		Input voltage sensitive	100V DC	• 2.3A / 6.0A 2.3A
AQZ107D		Input voltage sensitive	200V DC	• 1.1A / 3.0A 1.1A
AQZ104D		Input voltage sensitive	400V DC	• 0.6A / 1.5A 0.6A
AQZ202D		Input voltage sensitive	60V	• 2.7A / 9.0A 2.7A
AQZ205D		Input voltage sensitive	100V	• 1.8A / 6.0A 1.8A
AQZ207D		Input voltage sensitive	200V	• 0.9A / 3.0A 0.9A
AQZ204D		Input voltage sensitive	400V	• 0.45A / 1.5A 0.45A

Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
0.033/0.09Ω	1700pF	4V	0.8V	10.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.090/0.17Ω	1700pF	4V	0.8V	10.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.33/0.55Ω	900pF	4V	0.8V	10.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
1.23/1.6Ω	900pF	4V	0.8V	10.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.066/0.18Ω	1400pF	4V	0.8V	10.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.18/0.34Ω	1400pF	4V	0.8V	10.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
0.64/1.1Ω	600pF	4V	0.8V	10.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 
2.4/3.2Ω	600pF	4V	0.8V	10.0ms	3.0ms	2,500V AC	C-UL, UL, VDE 

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
□ AQY221R6T	1:1  1.8 x 2.1 x 2.9mm	Low CxR	30V	• 0.8A 
□ AQY221R2T		Low CxR	40V	• 0.25A 
□ AQY221N2T		Low CxR	40V	• 0.12A 
□ AQY221N3T		Low CxR	25V	• 0.15A 
□ AQY221N3M	1:1  2.2 x 2.95 x 1.4mm	Low CxR	25V	• 0.15A / - 
□ AQY221R2M		Low CxR	40V	• 0.25A / 0.75A 
□ AQY221N2M		Low CxR	40V	• 0.12A / - 

Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
0.18/1.35Ω	37.5pF	3.0mA	0.1mA	0.5ms	0.2ms	200V AC	— 
0.8/1.25Ω	14pF	3.0mA	0.1mA	0.5ms	0.2ms	200V AC	— 
9.5/12.5Ω	1.1pF	3.0mA	0.2mA	0.2ms	0.2ms	200V AC	— 
5.5/7.5Ω	1.1pF	3.0mA	0.2mA	0.2ms	0.2ms	200V AC	— 
5.5/7.5Ω	1.1pF	3.0mA	0.2mA	0.2ms	0.2ms	200V AC	— 
0.8/1.25Ω	14pF	3.0mA	0.2mA	0.5ms	0.2ms	200V AC	— 
9.5/12.5Ω	1.1pF	3.0mA	0.2mA	0.2ms	0.2ms	200V AC	— 

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
□ AQY221N3V	1:1  2.65 x 4.45 x 1.8mm	Low CxR	25V	• 0.15A / 0.4A 0.15A
□ AQY221R6V		Low CxR	30V	• 1.0A / 1.5A 1A
□ AQY221R4V		Low CxR	40V	• 0.5A / 1.0A 0.5A
□ AQY221N2V		Low CxR PSpice	40V	• 0.12A / 0.3A 0.12A
□ AQY221R2V		Low CxR PSpice	40V	• 0.25A / 0.75A 0.25A
AQY221FR2V		Built-in resistor	40V	• 0.25A / 0.75A 0.25A
AQY221FN2V		Built-in resistor	40V	• 0.12A / 0.2A 0.12A
AQY225R2V		Low CxR	80V	• 0.12A / 0.3A 0.12A

Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
5.5/7.5Ω	1.0pF	3.0mA	0.2mA	0.2ms	0.2ms	1,500V AC	— 
0.18/0.35Ω	37.5pF	3.0mA	0.1mA	0.75ms	0.2ms	1,500V AC	— 
0.55/1.0Ω	24pF	3.0mA	0.1mA	0.75ms	0.2ms	1,500V AC	— 
9.5/12.5Ω	1.0pF	3.0mA	0.2mA	0.5ms	0.2ms	1,500V AC	— 
0.75/1.25Ω	12.5pF	3.0mA	0.1mA	0.5ms	0.2ms	1,500V AC	— 
0.75/1.25Ω	12.5pF	Operate volt- age V _{Fon} (max.) 4.0V	Turn off volt- age V _{Foff} (min.) 0.8V	0.5ms	0.2ms	500V AC	— 
9.5/12.5Ω	1pF	Operate volt- age V _{Fon} (max.) 4.0V	Turn off volt- age V _{Foff} (min.) 0.8V	0.5ms	0.2ms	500V AC	— 
10.5/15Ω	4.5pF	3.0mA	0.1mA	0.5ms	0.2ms	1,500V AC	— 

Type = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
AQY221N2S	1:1  4.3 x 4.4 x 2.1mm	Low CxR	40V	• 0.12A / 0.3A 0.12A
AQY221R2S		Low CxR	40V	• 0.25A / 0.75A 0.25A
AQY222R1S		Low CxR	60V	• 0.5A / 1.0A 0.5A
AQY225R1S		Low CxR	80V	• 0.35A / 0.7A 0.35A
AQY225R2S		Low CxR	80V	• 0.15A / 0.45A 0.15A
AQV227NS	1:1  6.3 x 4.4 x 2.1mm		200V	• 0.05A / 0.15A 0.05A
AQV224NS			400V	• 0.04A / 0.12A 0.04A
AQV221	1:1  DIP : 8.8 x 6.4 x 3.9mm SMD: 8.8 x 6.4 x 3.6mm		40V	• 0.08A / 0.18A 0.8A
AQV225			80V	• 0.05A / 0.15A 0.05A
AQV227N			200V	• 0.07A / 0.21A 0.07A
AQV224N			400V	• 0.05A / 0.15A 0.05A

Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
9.5/12.5Ω	1.0pF	3.0mA	0.2mA	0.5ms	0.2ms	1,500V AC	—
0.8/1.25Ω	13pF	3.0mA	0.1mA	0.5ms	0.2ms	500V AC	—
0.8/1.2Ω	24.5pF	3.0mA	0.1mA	0.5ms	0.2ms	1,500V AC	—
0.8/1.2Ω	37.5pF	3.0mA	0.1mA	0.75ms	0.2ms	1,500V AC	C-UL, UL
10.5/15Ω	4.5pF	3.0mA	0.1mA	0.5ms	0.2ms	1,500V AC	—
30/50Ω	10pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL
70/100Ω	10pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL
22/35Ω	5.6pF	3.0mA	0.4mA	0.3ms	0.1ms	1,500V AC	C-UL, UL
36/50Ω	4.8pF	3.0mA	0.4mA	0.3ms	0.1ms	1,500V AC	C-UL, UL
30/50Ω	10pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL
70/100Ω	10pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
1 Form B Signal Relays				
AQY412S	1:1  4.3 x 4.4 x 2.1mm		60V	• 0.5A / 1.5A 0.5A
AQY410S			350V	• 0.12A / 0.3A 0.12A
AQY414S			400V	• 0.1A / 0.24A 0.1A
AQY412EH	1:1  DIP : 4.78 x 6.4 x 3.2mm SMD: 4.78 x 6.4 x 2.9mm		60V	• 0.55A / 1.5A 0.55A
AQY410EH			350V	• 0.13A / 0.4A 0.13A
AQY414EH			400V	• 0.12A / 0.3A 0.12A
AQV414S	1:1  6.3 x 4.4 x 2.1mm		400V	• 0.1A / 0.3A 0.1A

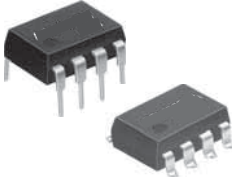
Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
1/2.5Ω	450pF	3.0mA	0.4mA	3.0ms	1.0ms	1,500V AC	C-UL, UL, VDE 
18/25Ω	110pF	3.0mA	0.4mA	1.0ms	1.0ms	1,500V AC	BSI, C-UL, UL 
26/35Ω	100pF	3.0mA	0.4mA	1.0ms	1.0ms	1,500V AC	BSI, C-UL, UL 
1/2.5Ω	480pF	3.0mA	0.4mA	10.0ms	1.0ms	5,000V AC	C-UL, UL, VDE 
18/25Ω	110pF	3.0mA	0.4mA	3.0ms	1.0ms	5,000V AC	BSI, C-UL, UL 
26/35Ω	100pF	3.0mA	0.4mA	3.0ms	1.0ms	5,000V AC	BSI, C-UL, UL 
26/50Ω	100pF	3.0mA	0.4mA	1.0ms	1.0ms	1,500V AC	C-UL, UL 

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
AQV410EH	1:1  DIP : 8.8 x 6.4 x 3.9mm SMD: 8.8 x 6.4 x 3.6mm		350V	• 0.13A / 0.4A 0.13A
AQV412EH			60V	• 0.55A / 1.5A 0.55A
AQV414E			400V	• 0.12A / 0.3A 0.12A
AQV414EH			400V	• 0.12A / 0.3A 0.12A
AQV453			250V	• 0.2A / 0.6A 0.2A
AQV414			400V	• 0.12A / 0.3A 0.12A
AQV454			400V	• 0.15A / 0.5A 0.15A
AQV454H			400V	• 0.15A / 0.5A 0.15A
1 Form B Power Relays				
AQZ404	1:1  21 x 3.5 x 12.5mm		400V	• 0.5A / 1.5A 0.5A

Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
18/35Ω	110pF	3.0mA	0.4mA	3.0ms	1.5ms	5,000V AC	BSI, C-UL, UL 
1/2.5Ω	480pF	3.0mA	0.4mA	10.0ms	1.5ms	5,000V AC	C-UL, UL, VDE 
26/50Ω	100pF	3.0mA	0.3mA	2.0ms	1.0ms	1,500V AC	C-UL, UL 
26/50Ω	100pF	3.0mA	0.4mA	3.0ms	1.5ms	5,000V AC	BSI, C-UL, UL 
5.5/8.0Ω	350pF	3.0mA	0.4mA	3.0ms	1.0ms	1,500V AC	C-UL, UL 
26/50Ω	100pF	3.0mA	0.4mA	1.0ms	1.0ms	1,500V AC	C-UL, UL 
10.5/16Ω	170pF	3.0mA	0.4mA	2.0ms	1.0ms	1,500V AC	C-UL, UL 
10.5/16Ω	170pF	3.0mA	0.4mA	3.0ms	1.0ms	5,000V AC	BSI, C-UL, UL 
2.8/4.0Ω	2000pF	3.0mA	0.4mA	7.5ms	3.0ms	2,500V AC	C-UL, UL, VDE 

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
□ AQW210S	1:1  9.37 x 4.4 x 2.1mm		350V	• 0.1A / 0.3A 0.1A
□ AQW212S			60V	• 0.4A / 1.5A 0.4A
□ AQW214S			400V	• 0.08A / 0.24A 0.8A
□ AQW212EH	1:1  DIP : 9.86 x 6.4 x 3.2mm SMD: 9.86 x 6.4 x 2.9mm		60V	• 0.5A / 1.5A 0.5A
□ AQW210EH			350V	• 0.12A / 0.36A 0.12A
AQW210HL		Current limiting	350V	• 0.1A / - 0.18A (Output limit current [typ.]) 0.1A
AQW214EH			400V	• 0.1A / 0.3A 0.1A
□ AQW216EH			600V	• 0.04A / 0.12A 0.04A

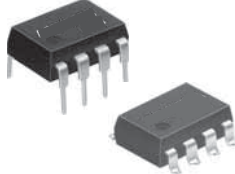
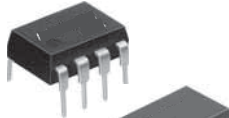
Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
16/35Ω	45pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	BSI, C-UL, UL 
0.83/2.5Ω	-	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	BSI, C-UL, UL 
30/50Ω	45pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	BSI, C-UL, UL 
0.83/2.5Ω	80pF	3.0mA	0.4mA	4.0ms	1.0ms	5,000V AC	BSI, C-UL, UL 
18/25Ω	45pF	3.0mA	0.4mA	2.0ms	1.0ms	5,000V AC	BSI, C-UL, UL 
20/25Ω	45pF	3.0mA	0.4mA	2.0ms	1.0ms	5,000V AC	BSI, C-UL, UL 
26/35Ω	45pF	3.0mA	0.4mA	2.0ms	1.0ms	5,000V AC	BSI, C-UL, UL 
52/120Ω	45pF	3.0mA	0.4mA	2.0ms	1.0ms	5,000V AC	BSI, C-UL, UL 

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
AQW212	1:1  DIP : 9.78 x 6.4 x 3.9mm SMD: 9.78 x 6.4 x 3.6mm		60V	• 0.6A / 1.0A 0.6A
AQW215			100V	• 0.3A / 0.9A 0.3A
AQW217			200V	• 0.16A / 0.48A 0.16A
AQW210			350V	• 0.12A / 0.36A 0.12A
AQW214			400V	• 0.1A / 0.3A 0.1A
AQW254			400V	• 0.12A / 0.36A 0.12A
AQW216			600V	• 0.04A / 0.12A 0.04A

Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
0.83/2.5Ω	150pF	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	C-UL, UL 
2.3/4.0Ω	110pF	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	C-UL, UL 
11/15Ω	70pF	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	C-UL, UL 
23/35Ω	45pF	3.0mA	0.4mA	0.5ms	0.05ms	1,500V AC	C-UL, UL 
30/50Ω	45pF	3.0mA	0.4mA	0.5ms	0.05ms	1,500V AC	C-UL, UL 
12.4/16Ω	170pF	3.0mA	0.4mA	2.0ms	0.2ms	1,500V AC	C-UL, UL 
70/120Ω	45pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL 

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
2 Form A Low CxR				
AQW227NS	1:1  9.37 x 4.4 x 2.1mm		200V	• 0.04A / 0.15A 0.04A
AQW223R2S		Low CxR	250V	• 0.14A / 0.42A 0.14A
AQW227N	1:1   DIP : 9.78 x 6.4 x 3.9mm SMD: 9.78 x 6.4 x 3.6mm		200V	• 0.05A / 0.15A 0.05A
AQW224N			400V	• 0.04A / 0.12A 0.04A
2 Form B				
□ AQW414S	1:1  9.37 x 4.4 x 2.1mm		400V	• 0.08A / 0.24A 0.24A
AQW414EH	1:1   DIP : 9.86 x 6.4 x 3.2mm SMD: 9.86 x 6.4 x 2.9mm		400V	• 0.1A / 0.3A 0.1A
AQW414	1:1   DIP : 9.78 x 6.4 x 3.9mm SMD: 9.78 x 6.4 x 3.6mm		400V	• 0.1A / 0.3A 0.1A
AQW454			400V	• 0.12A / 0.36A 0.12A

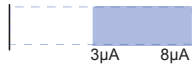
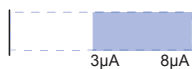
Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
30/50Ω	10pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL 
10/15Ω	33pF	3.0mA	0.1mA	0.5ms	0.2ms	1,500V AC	C-UL, UL 
30/50Ω	10pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL 
70/100Ω	10pF	3.0mA	0.4mA	0.5ms	0.2ms	1,500V AC	C-UL, UL 
26/50Ω	100pF	3.0mA	0.4mA	1.0ms	1.0ms	1,500V AC	BSI, C-UL, UL 
26/35Ω	100pF	3.0mA	0.4mA	3.0ms	1.0ms	5,000V AC	BSI, C-UL, UL 
26/50Ω	100pF	3.0mA	0.4mA	1.0ms	1.0ms	1,500V AC	C-UL, UL 
11/16Ω	170pF	3.0mA	0.4mA	2.0ms	1.0ms	1,500V AC	C-UL, UL 

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
1 Form A / 1 Form B				
AQW612S	1:1  9.4 x 4.4 x 2.1mm		60V	• 0.45A / 1.5A 0.45A
AQW610S	1:1  9.37 x 4.4 x 2.1mm		350V	• 0.1A / 0.3A 0.1A
AQW612EH	1:1  DIP : 9.78 x 6.4 x 3.9mm SMD: 9.78 x 6.4 x 3.6mm		60V	• 0.5A / 1.5A 0.5A
AQW610EH	1:1 		350V	• 0.12A / 0.36A 0.12A
AQW614EH	 DIP : 9.86 x 6.4 x 3.2mm SMD: 9.86 x 6.4 x 2.9mm		400V	• 0.1A / 0.3A 0.1A
AQW614	1:1 		400V	• 0.1A / 0.3A 0.1A
AQW654	 DIP : 9.78 x 6.4 x 3.9mm SMD: 9.78 x 6.4 x 3.6mm		400V	• 0.12A / 0.36A 0.12A

Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
1/2.5Ω	80pF (N.O.) 450pF (N.C.)	3.0mA	0.4mA	3.0ms	1.0m	1,500V AC	C-UL, UL, VDE 
18/25Ω	45pF (N.O.) 100pF (N.C.)	3.0mA	0.4mA	1.0ms	1.0ms	1,500V AC	BSI, C-UL, UL 
1/2.5Ω	80pF (N.O.) 480pF (N.C.)	3.0mA	0.4mA	4.0ms (N.O.) 10.0ms (N.C.)	1.0ms	5,000V AC	C-UL, UL, VDE 
18/25Ω	45pF (N.O.) 100pF (N.C.)	3.0mA	0.4mA	3.0ms	1.0ms	5,000V AC	BSI, C-UL, UL 
26/35Ω	45pF (N.O.) 100pF (N.C.)	3.0mA	0.4mA	3.0ms	1.0ms	5,000V AC	BSI, C-UL, UL 
27/50Ω	45pF (N.O.) 100pF (N.C.)	3.0mA	0.4mA	1.0ms	1.0ms	1,500V AC	C-UL, UL 
• N.O.: 10/16Ω • N.C.: 11/16Ω	170pF	3.0mA	0.4mA	3.0ms	1.0ms	1,500V AC	C-UL, UL 

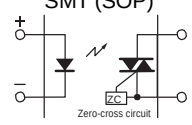
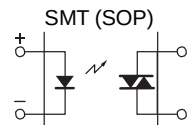
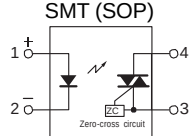
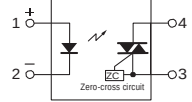
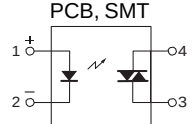
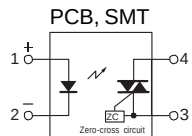
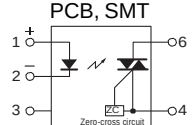
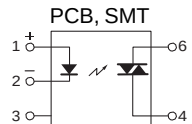
Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Peak load V DC/AC	Continuous load current/ Peak load current (100ms)
Multichannel				
AQS221R2S	1:1  10.37 x 4.4 x 2.1mm	Low CxR	40V	• 0.16A / 0.2A 0.16A
AQS221N2S		Low CxR	40V	• 0.06A / 0.12A 0.06A
AQS225R2S		Low CxR	80V	• 0.07A / 0.2A 0.07A
AQS221FR2S		Built-in resistor	40V	• 0.16A / 0.2A 0.16A
AQS221FN2S		Built-in resistor	40V	• 0.06A / 0.12A 0.06A

Output		Input		Switching speed		I/O isolation voltage	Approvals Data sheet
ON resistance (typical/max.)	Output capacitance (typical)	LED operate current(max.)	LED turn-off current (min.)	Turn-on time (max.)	Turn-off time (max.)		
0.8/1.25Ω	13pF	3.0mA	0.1mA	0.5ms	0.2ms	500V AC	— 
9.5/12.5Ω	1pF	3.0mA	0.1mA	0.2ms	0.2ms	500V AC	— 
10.5/15.0Ω	4.5pF	3.0mA	0.3mA	0.3ms	0.2ms	1,500V AC	— 
0.5/1.5Ω	12.5pF	Operate volt- age V _{Fon} (max.) 4.0V	Turn off volt- age V _{Foff} (min.) 0.8V	0.5ms	0.2ms	500V AC	— 
9.5/12.5Ω	1pF	Operate volt- age V _{Fon} (max.) 4.0V	Turn off volt- age V _{Foff} (min.) 0.8V	0.5ms	0.2ms	500V AC	— 

Type □ = Popular type	Photo with dimensions (Picture scale: DIN A4)	Features	Output	
			Drop-out voltage (typical/min.)	Short circuit current (typical/min.)
□ APV2111V	1:1  2.65 x 4.45 x 1.8mm	Ultra small SSOP hous- ing	8.2/5.0V	• 8 / 3μA 
□ APV1121S	1:1  4.3 x 4.4 x 2mm	Ultra small SMD (SOP) housing	8.7/6.0V	• 14 / 5μA 
APV2121S		Ultra small SMD (SOP) housing	8.2/5.0V	• 8 / 3μA 
APV1122	1:1  DIP : 8.8 x 6.4 x 3.6mm SMD: 8.8 x 6.4 x 3.9mm	5000V breakdown volt- age	8.7/6.0V	• 14 / 5μA 

Input		Switching speed		I/O isolation voltage	Approvals Data sheet
LED operate current (max.)	LED turn-off current (min.)	Turn-on time (typical)	Turn-off time (typical)		
3.0mA	0.2mA	0.8ms	0.1ms	1,500V AC	C-UL, UL 
3.0mA	0.2mA	0.4ms	0.1ms	2,500V AC	C-UL, UL 
3.0mA	0.2mA	0.8ms	0.1ms	2,500V AC	C-UL, UL 
3.0mA	0.2mA	0.4ms	0.1ms	5,000V AC	C-UL, UL 

Type	Photo with dimensions (Picture scale: DIN A4)	Features	Output			
			Repetitive peak OFF-state voltage	Max. load current/ Non-repetitive surge current (1 cycle, 60Hz)	Peak ON-state voltage (max.)	Peak OFF-state current (max.)
APT1211S	 1:1 4.3 x 4.4 x 2.1mm	• Zero-cross • SOP 4 pin	• 600V	• 0.05A / 0.6A 	2.5V	1μA
APT1221S		• Random • SOP 4 pin				
APT1231S		• Low zero-cross • SOP 4 pin			2.0V	
APT1211	 1:1 DIP : 4.78 x 6.4 x 3.2mm SMD: 4.78 x 6.4 x 2.9mm	• Zero-cross • DIP 4 pin	• 600V	• 0.1A / 1.2A 	2.5V	1μA
APT1221		• Random • DIP 4 pin				
APT1231		• Low zero-cross • DIP 4 pin			2.0V	
APT1212	 1:1 DIP : 8.8 x 6.4 x 3.9mm SMD: 8.8 x 6.4 x 3.6mm	• Zero-cross • DIP 6 pin	• 600V	• 0.1A / 1.2A 	2.5V	1μA
APT1222		• Random • DIP 6 pin				
APT1232		• Low zero-cross • DIP 6 pin			2.0V	

Input			Zero-cross voltage (max.)	I/O isolation voltage	Connection type Switching diagram	Approvals Data sheet
LED trigger current (max.)	LED drop-out voltage (max.)	Turn-on time (max.)				
10mA	1.3V	0.1ms	50V	3,750V AC		C-UL, UL, VDE 
			—			
			15V			
10mA	1.3V	0.1ms	50V	5,000V AC		C-UL, UL, VDE 
			—			
			15V			
10mA	1.3V	0.1ms	50V	5,000V AC		C-UL, UL, VDE 
			—			
			15V		