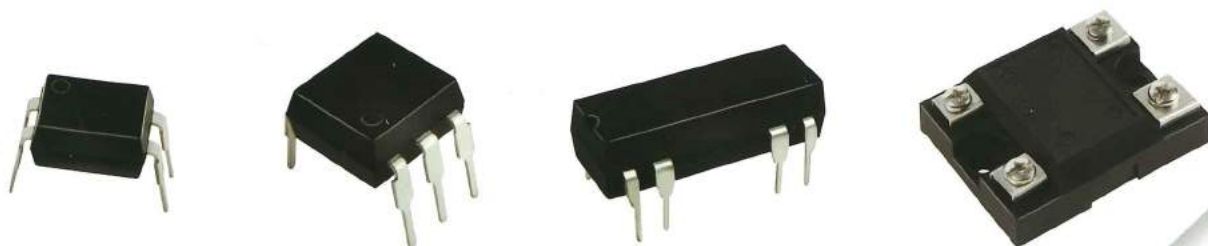




PRODUCT SELECTION GUIDE



► Photo Coupler ► SSR MOSFET Output ► Reed Relay ► SSR Triac Output



Company Profile

Since the establishment in 1981

Cosmo Electronics Corporation has become world's leading manufacturer in the field of Photo Couplers and Relays.

In beginning, we were dedicated to the innovation and development to leading-edge relay products. In terms of new technologies launched to market day by day, we had decided to involve the field of OPTO electronics device for two product lines, Photo Coupler and SSR-MOSFET output. Those two product lines could fulfill demands walk from a variety of Power supply 、 Battery Management System 、 Industrial 、 Security and Automobile related products.

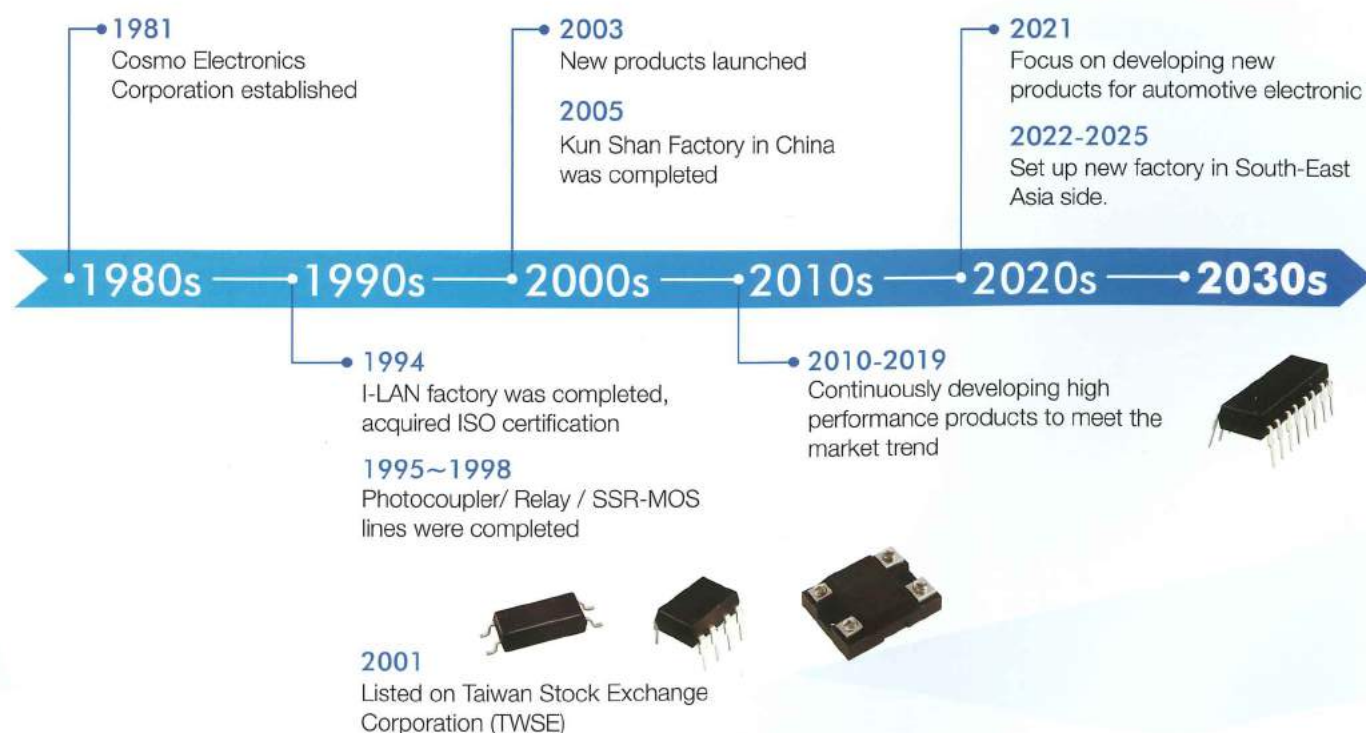
Cosmo is recognized as global leading company in OPTO

Professional techniques and comprehensive service.

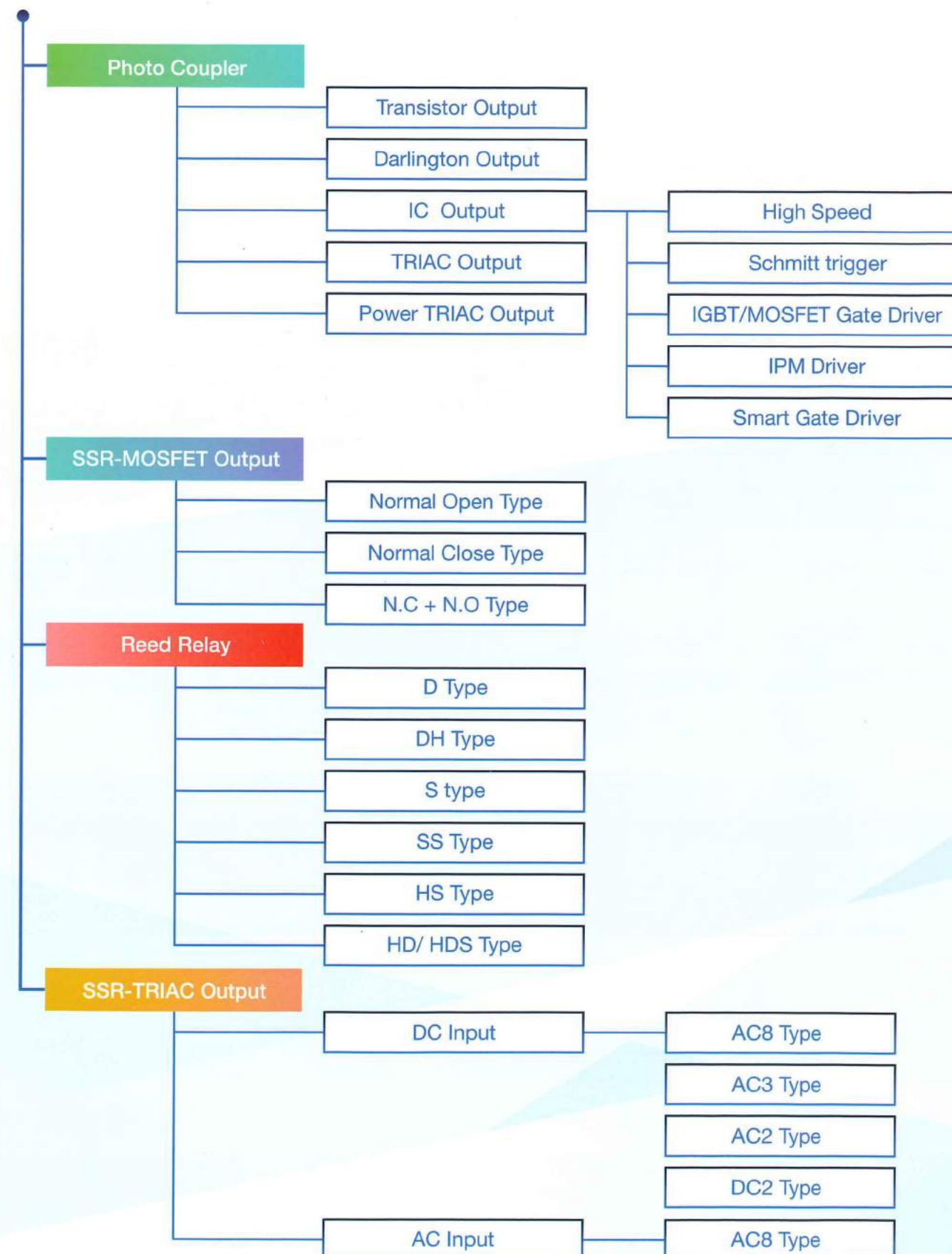
For past 40 years, through its relentless devotion to research and development, keep providing professional techniques and comprehensive service to customers, Cosmo is recognized as global leading company in OPTO electronics industry and reliable to all customers worldwide.



Company Milestone



Product Tree



Transistor / Darlington Output DIP Type												
Model Number	Schematic	Absolute Maximum Ratings				Electro-optical Characteristics					Remark	
		I _F (mA)	V _{CEO} (V)	I _C (mA)	V _{iso} (Vrms)	V _F (V) Max.	CTR%	V _{CE(sat)} (V) Max.	t _r (us) Typ.	t _f (us) Typ.	Series Product	Description
K1010		50	80	50	5000	1.4	50~600	IF=5mA Vce=5V	0.2	4	KP1020 KP1040	2-Channel 4-Channel
KP1210		50	350	50	5000	1.3	50~600	IF=5mA Vce=5V	0.4	3		
K2010		50	80	50	5000	1.4	60~600	IF=2mA Vce=5V	0.3	5		
KP2110		50	80	50	5000	1.4	60~600	IF=2mA Vce=5V	0.3	5		
KP2210		50	350	50	5000	1.3	50~600	IF=5mA Vce=5V	0.4	3		
K3010		± 50	80	50	5000	1.4	60~ 600	IF=±1mA Vce=5V	0.3	5	KP3020 KP3040	2-Channel 4-Channel
KP4010		50	300	150	5000	1.4	600~9000	IF=1mA Vce=2V	1.5	60	KP4020 KP4040	2-Channel 4-Channel
KP5010		50	300	150	5000	1.4	600~9000	IF=1mA Vce=2V	1.5	60		
KP6010		± 50	80	50	5000	1.4	60~600	IF=±1mA Vce=5V	0.3	5		
KPC4N33		50	30	150	5000	1.4	Min.500	IF=1mA Vce=2V	1.5	60		
KPC815		50	35	80	5000	1.4	600~7500	IF=1mA Vce=2V	1.0	5	KPC825 KPC845	2-Channel 4-Channel

Transistor / Darlington Output Mini Flat Type												
Model Number	Schematic	Absolute Maximum Ratings				Electro-optical Characteristics					Remark	
		I _F (mA)	V _{CEO} (V)	I _C (mA)	V _{iso} (Vrms)	V _F (V) Max.	CTR%	V _{CE(sat)} (V) Max.	t _r (us) Typ.	t _f (us) Typ.	Series Product	Description
KPC354NT		±50	80	50	3750	1.4	20 ~ 400	IF=±1mA Vce=5V	0.3	4		
KPC355NT		50	35	150	3750	1.4	600~7500	IF=1mA Vce=2V	1.0	60		
KPC357NT		50	80	50	3750	1.4	50 ~ 600	IF=5mA Vce=5V	0.3	5		
KPC452		50	300	150	3750	1.4	Min.1000	IF=1mA Vce=2V	1.5	100		

Transistor / Darlington Output 4LSOP Type												
Model Number	Schematic	Absolute Maximum Ratings				Electro-optical Characteristics					Remark	
		I _F (mA)	V _{CEO} (V)	I _C (mA)	V _{iso} (Vrms)	V _F (V) Max.	CTR%	V _{CE(sat)} (V) Max.	t _r (us) Typ.	t _f (us) Typ.	Series Product	Description
KT101X		50	80	50	5000	1.4	50~600	IF=5mA VCE=5V	0.3	5		
KT1210		50	35	150	5000	1.4	Min.200	IF=1mA VCE=2V	1	200		
KT1310		±50	35	150	5000	1.4	Min.200	IF=±1mA VCE=2V	1	200		
KT1410		50	300	150	5000	1.4	Min.1000	IF=1mA VCE=2V	1.5	100		
KT1610		±50	80	50	5000	1.4	50~300	IF=±5mA VCE=5V	0.3	5		

Transistor / Darlington Output 4SSOP Type												
Model Number	Schematic	Absolute Maximum Ratings				Electro-optical Characteristics					Remark	
		I _F (mA)	V _{CEO} (V)	I _C (mA)	V _{iso} (Vrms)	V _F (V) Max.	CTR%	V _{CE(sat)} (V) Max.	t _r (us) Typ.	t _f (us) Typ.	Series Product	Description
KPS2801		50	80	50	3750	1.4	50~600	IF=5mA Vce=5V	0.3	3		
KPS2802		50	40	90	3750	1.4	Min.200	IF=1mA Vce=2V	1.0	200		
KPS2805		±50	80	50	3750	1.4	50~600	IF=±5mA Vce=5V	0.3	3		
KPS2806		±50	40	90	3750	1.4	Min.200	IF=±1mA Vce=2V	1.0	200		
KPS2832		50	300	60	3750	1.4	Min.400	IF=1mA Vce=2V	1.0	100		

Transistor / Darlington Output Low Input Current

Model Number	Schematic	Absolute Maximum Ratings				Electro-optical Characteristics						Remark
		I _F (mA)	V _{CEO} (V)	I _C (mA)	V _{iso} (Vrms)	V _F (V) Max.	CTR%	V _{CE(sat)} (V) Max.	t _r (us) Typ.	t _f (us) Typ.		
K1010T		50	80	50	5000	1.4	50~600	I _F =1mA V _{ce} =5V	0.2	4	3	
K1010W		50	80	50	5000	1.8	50~600	I _F =0.5mA V _{ce} =5V	0.2	4	3	
K1010Z		50	80	50	5000	1.8	50~600	I _F =0.1mA V _{ce} =5V	0.2	4	3	
KPC357NT0T		50	80	50	3750	1.4	100~600	I _F =1mA V _{ce} =5V	0.2	4	3	
KPC357NT0W		50	80	50	3750	1.8	100~600	I _F =0.5mA V _{ce} =5V	0.2	4	3	
KPC357NT0Z		50	80	50	3750	1.8	100~600	I _F =0.1mA V _{ce} =5V	0.2	4	3	
KPS28010T		50	80	50	3750	1.4	100~600	I _F =1mA V _{ce} =5V	0.2	4	3	
KPS28010W		50	80	50	3750	1.8	100~600	I _F =0.5mA V _{ce} =5V	0.2	4	3	
KPS28010Z		50	80	50	3750	1.8	100~600	I _F =0.1mA V _{ce} =5V	0.2	4	3	
KT101T		50	80	50	5000	1.4	50~600	I _F =1mA V _{CE} =5V	0.2	4	3	
KT101W		50	80	50	5000	1.8	50~600	I _F =0.5mA V _{CE} =5V	0.3	11	11	
KT101Z		50	80	50	5000	1.8	50~600	I _F =0.1mA V _{CE} =5V	0.3	11	11	

IC Output High Speed

Model Number	Schematic	Absolute Maximum Ratings				Electro-optical Characteristics						Remarks
		I _F (mA)	V _{CC} (V)	I _O (mA)	V _{iso} (Vrms)	Data Rate	CTR%		C _{MR} (V/μS) Typ.	T _{PHL} (μs) Typ.	T _{PLH} (μs) Typ.	
KPC6N135		25	15	8	5000	1M	Min.7	IF=16mA Vo=0.4V Vcc=4.5V	1000	0.3	0.4	
KPC6N136		25	15	8	5000	1M	Min.19	IF=16mA Vo=0.4V Vcc=4.5V	1000	0.3	0.3	
KPC6N137		25	7	50	5000	10M	-	-	500	0.045	0.045	
KPC2611		20	7	50	5000	10M	-	-	10K	0.065	0.1	
KPC6N138		20	7	60	5000	-	Min.300	IF=1.6mA Vo=0.4V Vcc=4.5V	500	2	7	
KPC6N139		20	18	60	5000	-	Min.500	IF=1.6mA Vo=0.4V Vcc=4.5V	500	5	10	
KPC410		25	7	50	3750	10M	-	-	500	0.045	0.045	
KPC611		25	7	50	3750	10M	-	-	10K	0.05	0.06	
KPC457		25	30	8	3750	1M	Min.19	IF=16mA Vo=0.4V Vcc=4.5V	30K	0.2	0.4	
KPC615		30	6	10	3750	15M	-	-	10K	0.04	0.05	
KT060L		20	7	50	5000	10M	-	-	15K	0.035	0.06	
KT050L		25	30	8	5000	1M	Min.20	IF=16mA Vo=0.4V Vcc=4.5V	25K	0.25	0.65	
KPC456		25	30	25	3750	-	Min.44	IF=10mA Vo=0.6V	15K	0.2	0.4	

IC Output Schmitt Trigger

Model Number	Schematic	Absolute Maximum Ratings				Electro-optical Characteristics						Remark
		I_F (mA)	V_{CC} (V)	I_O (mA)	V_{iso} (Vrms)	Data Rate	I_{OFF} / I_{FHL} (mA) Min.	I_{ON} / I_{FHL} (mA) Max.	C_{MR} (V/us) Typ.	T_{PHL} (us) Typ.	T_{PLH} (us) Typ.	
KPC400		50	16	50	3750	2M	0.4	2	-	2	1	
H11L1		50	16	50	5000	2M	0.3	1.6	-	-	-	

IC Output IGBT / MOSFET Gate Driver												
Model Number	Schematic	Absolute Maximum Ratings				Electro-optical Characteristics						Remark
		I _F (mA)	V _{CC} (V)	I _O (mA)	V _{iso} (Vrms)	I _{CCL} (mA) Typ	I _{CCH} (mA) Typ	I _{FLH} (mA) Max.	V _{FHL} (V) Min.	T _{PHL} (us) Typ.	T _{PLH} (us) Typ.	
KPC315		20	30	1	3750	2.1	1.7	5	0.8	0.11	0.13	
KP1510		20	35	2.5	5000	2.5	2.5	5	0.7	0.3	0.3	
KTLP250		20	35	±1.5	5000	7.5	7	5	0.8	0.15	0.15	
KTLP350		20	35	±2.5	5000	2	2	5	0.8	0.26	0.26	
KT0314		20	35	1	5000	1.9	1.6	2	0.8	0.054	0.069	
KT0341		20	35	3	5000	2.1	1.7	2	0.8	0.075	0.061	
KT0343		20	35	4	5000	2.1	1.7	2	0.8	0.075	0.061	
IC Output IPM Driver												
Model Number	Schematic	Absolute Maximum Ratings				Electro-optical Characteristics						Remark
		I _F (mA)	V _{CC} (V)	I _O (mA)	V _{iso} (Vrms)	I _{CCL} (mA) Max.	I _{CCH} (mA) Max.	I _{FLH} / I _{FHL} (mA) Max.	V _{FHL} (V) Min.	T _{PHL} (us) Typ.	T _{PLH} (us) Typ.	
KPC483		20	35	50mA	3750	3	3	2.5	0.8	0.11	0.09	
KPC484		20	35	50mA	3750	3	3	2.5	0.8	0.14	0.07	
KT0480		20	35	50mA	5000	3	3	1.5	0.8	0.11	0.09	
KT0481		20	35	50mA	5000	3	3	1.5	0.8	0.09	0.11	
IC Output Smart Gate Driver												
Model Number	Schematic	Absolute Maximum Ratings				Electro-optical Characteristics						Remark
		I _F (mA)	V _{CC} (V)	I _O (mA)	V _{iso} (Vrms)	I _{CC} (mA) Max.	I _{FLH} (mA) Max.	V _{FHL} (V) Min.	T _{PHL} (us) Max.	T _{PLH} (us) Max.	C _{MR} (KV/uS) min.	
KT330J		20	15~30	1.5	5000	5	6	0.8	0.25	0.25	50	Auto Reset
KT331J		20	15~30	1.5	5000	5	6	0.8	0.25	0.25	50	LED Reset
KT332J		20	15~30	2.5	5000	5	5	0.8	0.25	0.25	50	LED Reset
KT333J		20	15~30	2.5	5000	5	5	0.8	0.25	0.25	50	Auto Reset
KT5214		20	15~30	4.0	5000	5	5	0.8	0.25	0.25	50	LED Reset

Triac Output												
Model Number	Schematic	Absolute Maximum Ratings			Electro-optical Characteristics						Remark	
		I _F (mA)	V _{DRM} (Vpeak)	V _{iso} (Vrms)	V _F (V) Max.	I _{DRM} (mA) Max.	I _{FT} (mA) Max.	V _{TM} (V) Max.	V _{INH} (V) Max.	dv/dt (V/us) Min.		
KMOC3011		50	600	5300	1.4	500	10	3	–	1000		
KMOC3012		50	600	5300	1.4	500	10	3	20	1000		
KMOC3021		50	400	5300	1.4	100	15	3	–	1000		
KMOC3022							10					
KMOC3023							5					
KMOC3041		50	400	5300	1.4	500	15	3	20	1000		
KMOC3042							10					
KMOC3043							5					
KMOC3051		50	600	5300	1.4	500	15	3	–	1000		
KMOC3052							10					
KMOC3053							5					
KMOC3061		50	600	5300	1.4	500	15	3	20	1000		
KMOC3062							10					
KMOC3063							5					
KMOC3081		50	800	5300	1.4	500	15	3	20	1000		
KMOC3082							10					
KMOC3083							5					
KTLP160G		50	400	3750	1.4	1000	10	3	–	1000		
KTLP160J		50	600	3750	1.4	1000	10	3	–	1000		
KTLP165J		50	600	3750	1.4	1000	10	3	–	1000		
KTLP260J		50	600	3750	1.4	1000	10	3	–	1000		
KTLP161G		50	400	3750	1.4	1000	10	3	20	1000		
KTLP161J		50	600	3750	1.4	1000	10	3	20	1000		
KTLP166J		50	600	3750	1.4	1000	10	3	20	1000		
KTLP168J		50	600	3750	1.4	1000	3	3	20	1000		
KTLP161L		50	800	3750	1.4	1000	10	3	20	1000		
Power Triac Output												
Model Number	Schematic	Absolute Maximum Ratings				Electro-optical Characteristics						Remark
		I _F (mA)	V _{DRM} (Vpeak)	I _T (Arms)	V _{iso} (Vrms)	V _F (V) Max.	I _{DRM} (uA) Max.	I _{FT} (mA) Max.	V _{TM} (V) Max.	V _{INH} (V) Max.	dv/dt (V/us) Min.	
KTLP3502		50	400	0.5	5300	1.4	100	10	3	–	200	
KTLP3506			600	1.2								
KTLP3616			600	1.2								
KTLP3503		50	400	0.5	5300	1.4	100	10	3	50	200	
KTLP3507			600	1.2								
KTLP3617			600	1.2								

Normal Open Type

Model Number	Schematic	Absolute Maximum Ratings			Electro-optical Characteristics							Remark
		V _B (V)	I _L (mA)	V _{iso} (Vrms)	V _F (V) Max.	I _{FON} (mA) Max.	I _{FOFF} (mA) Min.	I _{LEAK} (μA) Max.	R _{ON} (Ω) Typ.	T _{ON} (mS) Max.	T _{OFF} (mS) Max.	
KAQY212S		60	400	1500	1.5	3.0	0.2	1.0	0.83	1.5	1.5	
KAQY212		60	400	5000	1.5	3.0	0.2	1.0	0.83	1.5	1.5	
KAQY212GS		60	1000	1500	1.5	3.0	0.2	1.0	0.2	1.5	0.5	
KAQY212G		60	1000	5000	1.5	3.0	0.2	1.0	0.2	1.5	0.5	
KAQY217S		200	180	1500	1.5	3.0	0.2	1.0	6	1.0	1.0	
KAQY217		200	180	5000	1.5	3.0	0.2	1.0	6	1.0	1.0	
KAQY213S		250	200	1500	1.5	3.0	0.2	1.0	8	1.0	1.5	
KAQY213		250	200	5000	1.5	3.0	0.2	1.0	8	1.0	1.5	
KAQY214S		400	130	1500	1.5	3.0	0.2	1.0	20	1.0	1.0	
KAQY214		400	130	5000	1.5	3.0	0.2	1.0	20	1.0	1.0	
KAQY216S		600	120	1500	1.5	3.0	0.2	1.0	35	1.0	1.5	
KAQY216		600	120	5000	1.5	3.0	0.2	1.0	35	1.0	1.5	
KAQV212		60	400	5000	1.5	3.0	0.2	1.0	0.83	1.5	1.5	
KAQV212G		60	1000	5000	1.5	3.0	0.2	1.0	0.25	1.5	0.5	
KAQV217		200	180	5000	1.5	3.0	0.2	1.0	6	1.0	1.5	
KAQV213		250	200	5000	1.5	3.0	0.2	1.0	8	1.0	1.5	
KAQV214		400	130	5000	1.5	3.0	0.2	1.0	20	1.0	1.5	
KAQV216		600	120	5000	1.5	3.0	0.2	1.0	35	1.0	1.5	
KAQV258		1500	50	5000	1.5	3.0	0.2	1.0	150	1.0	0.2	
KAQW212S		60	400	1500	1.5	3.0	0.2	1.0	0.83	1.5	1.5	
KAQW212		60	400	5000	1.5	3.0	0.2	1.0	0.83	1.5	1.5	
KAQW217S		200	180	1500	1.5	3.0	0.2	1.0	6	1.0	1.0	
KAQW217		200	180	5000	1.5	3.0	0.2	1.0	6	1.0	1.0	
KAQW213S		250	200	1500	1.5	3.0	0.2	1.0	8	1.0	1.5	
KAQW213		250	200	5000	1.5	3.0	0.2	1.0	8	1.0	1.5	
KAQW214S		400	130	1500	1.5	3.0	0.2	1.0	20	1.0	1.0	
KAQW214		400	130	5000	1.5	3.0	0.2	1.0	20	1.0	1.0	
KAQW216S		600	120	1500	1.5	3.0	0.2	1.0	35	1.0	1.5	
KAQW216		600	120	5000	1.5	3.0	0.2	1.0	35	1.0	1.5	

SiC MOSFET Normal Open Type

Model Number	Schematic	Absolute Maximum Ratings			Electro-Optical Characteristics							Remark
		V _B (V)	I _L (mA)	V _{iso} (Vrms)	V _F (V) Max.	I _{FON} (mA) Max.	I _{FOFF} (mA) Min.	I _{LEAK} (μA) Max.	R _{ON} (Ω) Typ.	T _{ON} (mS) Max.	T _{OFF} (mS) Max.	
KAQV271		1500	50	5000	1.5	3.0	0.2	1.0	25	0.5	1.0	AEC-Q101
KAQV272		1800	30	5000	1.5	3.0	0.2	10	25	0.5	1.0	AEC-Q101

Normal Open / Low Input Current & ON Resistance Type

Model Number	Schematic	Absolute Maximum Ratings			Electro-Optical Characteristics							Remark
		V _B (V)	I _L (mA)	V _{iso} (Vrms)	V _F (V) Max.	I _{FON} (mA) Max.	I _{FOFF} (mA) Min.	I _{LEAK} (μA) Max.	R _{ON} (Ω) Typ.	T _{ON} (mS) Max.	T _{OFF} (mS) Max.	
KAQY212SE		60	200	1500	1.5	2.0	0.2	—	1.0	7	1.5	1.0
KCP1017		60	130	1500	1.5	1.0	0.5	—	1.0	7	1.0	1.0
KCP1008		100	150	1500	1.5	2.0	—	0.2	1.0	6	2.0	1.0
KAQV253		250	200	5000	1.5	3.0	—	0.2	1.0	5	1.0	1.5
KAQV254		400	150	5000	1.5	3.0	—	0.2	1.0	12	1.0	1.5

Normal Close Type

Model Number	Schematic	Absolute Maximum Ratings			Electro-Optical Characteristics							Remark
		V _B (V)	I _L (mA)	V _{iso} (Vrms)	V _F (V) Max.	I _{FON} (mA) Min.	I _{FOFF} (mA) Max.	I _{LEAK} (μA) Max.	R _{ON} (Ω) Typ.	T _{ON} (mS) Max.	T _{OFF} (mS) Max.	
KAQY412S		60	200	1500	1.5	0.2	3.0	2.0	2.5	1.5	1.5	
KAQY412			200	5000	1.5	0.2	3.0	2.0	2.5	1.5	1.5	
KAQY414S		400	130	1500	1.5	0.2	3.0	2.0	25	1.5	1.0	
KAQY414			130	5000	1.5	0.2	3.0	2.0	25	1.5	1.0	
KAQV412		60	200	5000	1.5	0.2	3.0	2.0	2.5	1.5	1.5	
KAQV414		400	130	5000	1.5	0.2	3.0	2.0	25	1.5	1.0	
KAQW412S		60	200	1500	1.5	0.2	3.0	2.0	2.5	1.5	1.5	
KAQW412			200	5000	1.5	0.2	3.0	2.0	2.5	1.5	1.5	
KAQW414S		400	130	1500	1.5	0.2	3.0	2.0	25	1.5	1.0	
KAQW414			130	5000	1.5	0.2	3.0	2.0	25	1.5	1.0	

Normal Close + Normal Open Type

Model Number	Schematic	Absolute Maximum Ratings			Electro-Optical Characteristics							Remark
		V _B (V)	I _L (mA)	V _{iso} (Vrms)	V _F (V) Max.	I _{FON} (mA) Max.	I _{FOFF} (mA) Min.	I _{LEAK} (μA) Max.	R _{ON} (Ω) Typ.	T _{ON} (mS) Max.	T _{OFF} (mS) Max.	
KAQW612S		60	200	1500	1.5	N.O=3.0 N.C=0.2	N.O=0.2 N.C=3.0	N.O=1.0 N.C=2.0	N.O=0.83 N.C=2.50	N.O=1.5 N.C=1.5	N.O=1.5 N.C=1.5	
KAQW612			200	5000	1.5	N.O=3.0 N.C=0.2	N.O=0.2 N.C=3.0	N.O=1.0 N.C=2.0	N.O=0.83 N.C=2.50	N.O=1.5 N.C=1.5	N.O=1.5 N.C=1.5	
KAQW614S		400	130	1500	1.5	N.O=3.0 N.C=0.2	N.O=0.2 N.C=3.0	N.O=1.0 N.C=2.0	N.O=20 N.C=25	N.O=1.0 N.C=1.0	N.O=1.5 N.C=1.5	
KAQW614			130	5000	1.5	N.O=3.0 N.C=0.2	N.O=0.2 N.C=3.0	N.O=1.0 N.C=2.0	N.O=20 N.C=25	N.O=1.0 N.C=1.0	N.O=1.5 N.C=1.5	

D Type

Model Number	Schematic	Contact Form	Coil Ratings				Electrical Characteristics						
			Coil Resistance +/- 10% Ω	Nominal Coil Voltage (VDC)	Must Operate (VDC)	Must Release (VDC)	Contact Resistance (mΩ max)	Insulation Resistance (Ω min)	Power Consumption (VA max)	Switching Voltage (VDC max)	Switching Current (A max)	Switching Breakdown Voltage (VDC min)	Breakdown Voltage (VDC min)
D1A050000		1 form A	500	5	3.75	1.0	100	10 ¹¹	10	200	0.5	250	500
D1A120000		1 form A	1000	12	9	1.2	100	10 ¹¹	10	200	0.5	250	500
D1A240000		1 form A	2150	24	18	2.4	100	10 ¹¹	10	200	0.5	250	500
D1B050000		1 form B	500	5	3.75	1.0	100	10 ¹¹	10	200	0.5	250	500
D1B120000		1 form B	1000	12	9	1.2	100	10 ¹¹	10	200	0.5	250	500
D1B240000		1 form B	2150	24	18	2.4	100	10 ¹¹	10	200	0.5	250	500
D1C050000		1 form C	200	5	3.75	1.0	150	10 ⁹	3	100	0.25	200	500
D1C120000		1 form C	500	12	9	1.2	150	10 ⁹	3	100	0.25	200	500
D1C240000		1 form C	2150	24	18	2.4	150	10 ⁹	3	100	0.25	200	500
D2A050000		2 form A	140	5	3.75	1.0	100	10 ¹¹	10	200	0.5	250	500
D2A120000		2 form A	500	12	9	1.2	100	10 ¹¹	10	200	0.5	250	500
D2A240000		2 form A	2150	24	18	2.4	100	10 ¹¹	10	200	0.5	250	500
D1A051000		1 form A	500	5	3.75	1.0	100	10 ¹¹	10	200	0.5	250	500
D1A121000		1 form A	1000	12	9	1.2	100	10 ¹¹	10	200	0.5	250	500
D1A241000		1 form A	2150	24	18	2.4	100	10 ¹¹	10	200	0.5	250	500
D1B051000		1 form B	500	5	3.75	1.0	100	10 ¹¹	10	200	0.5	250	500
D1B121000		1 form B	1000	12	9	1.2	100	10 ¹¹	10	200	0.5	250	500
D1B241000		1 form B	2150	24	18	2.4	100	10 ¹¹	10	200	0.5	250	500
D1C051000		1 form C	200	5	3.75	1.0	150	10 ⁹	3	100	0.25	200	500
D1C121000		1 form C	500	12	9	1.2	150	10 ⁹	3	100	0.25	200	500
D1C241000		1 form C	2150	24	18	2.4	150	10 ⁹	3	100	0.25	200	500
D2A051000		2 form A	140	5	3.75	1.0	100	10 ¹¹	10	200	0.5	250	500
D2A121000		2 form A	500	12	9	1.2	100	10 ¹¹	10	200	0.5	250	500
D2A241000		2 form A	2150	24	18	2.4	100	10 ¹¹	10	200	0.5	250	500

DH Type

Model Number	Schematic	Contact Form	Coil Ratings				Electrical Characteristics						
			Coil Resistance +/- 10% Ω	Nominal Coil Voltage (VDC)	Must Operate (VDC)	Must Release (VDC)	Contact Resistance (mΩ max)	Insulation Resistance (Ω min)	Power Consumption (VA max)	Switching Voltage (VDC max)	Switching Current (A max)	Switching Breakdown Voltage (VDC min)	Breakdown Voltage (AC min)
DH1A050000		1 form A	500	5	3.75	1.0	100	10 ¹¹	10	200	0.5	250	4000
DH1A120000		1 form A	1000	12	9	1.2	100	10 ¹¹	10	200	0.5	250	4000
DH1A240000		1 form A	2150	24	18	2.4	100	10 ¹¹	10	200	0.5	250	4000

S Type

Model Number	Schematic	Contact Form	Coil Ratings				Electrical Characteristics						
			Coil Resistance +/- 10% Ω	Nominal Coil Voltage (VDC)	Must Operate (VDC)	Must Release (VDC)	Contact Resistance (mΩ max)	Insulation Resistance (Ω min)	Power Consumption (VA max)	Switching Voltage (VDC max)	Switching Current (A max)	Switching Breakdown Voltage (VDC min)	Breakdown Voltage (VDC min)
S1A050000		1 form A	500	5	3.75	1.0	100	10 ¹¹	10	200	0.5	250	1000
S1A120000		1 form A	1000	12	9	1.2	100	10 ¹¹	10	200	0.5	250	1000
S1A240000		1 form A	2000	24	18	2.4	100	10 ¹¹	10	200	0.5	250	1000

SS Type

Model Number	Schematic	Contact Form	Coil Ratings				Electrical Characteristics						
			Coil Resistance +/- 10% Ω	Nominal Coil Voltage (VDC)	Must Operate (VDC)	Must Release (VDC)	Contact Resistance (mΩ max)	Insulation Resistance (Ω min)	Power Consumption (VA max)	Switching Voltage (VDC max)	Switching Current (A max)	Switching Breakdown Voltage (VDC min)	Breakdown Voltage (VDC min)
SS1A050000		1 form A	500	5	3.75	1.0	100	10 ¹¹	10	200	0.5	250	2500
SS1A120000		1 form A	1000	12	9	1.2	100	10 ¹¹	10	200	0.5	250	2500
SS1A240000		1 form A	2000	24	18	2.4	100	10 ¹¹	10	200	0.5	250	2500
SS1C050000		1 form C	200	5	3.75	1.0	150	10 ⁹	3	100	0.25	200	1000
SS1C120000		1 form C	500	12	9	1.2	150	10 ⁹	3	100	0.25	200	1000
SS1C240000		1 form C	2000	24	18	2.4	150	10 ⁹	3	100	0.25	200	1000

HS Type

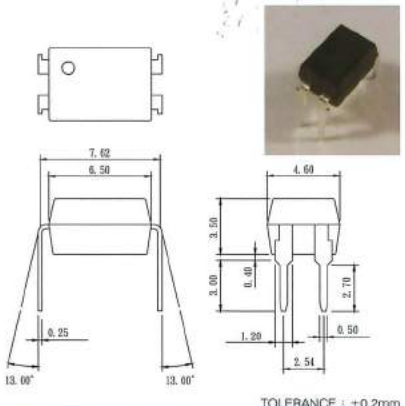
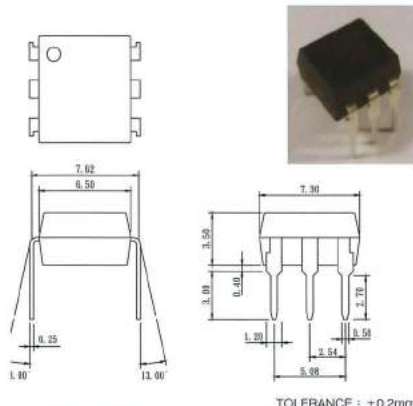
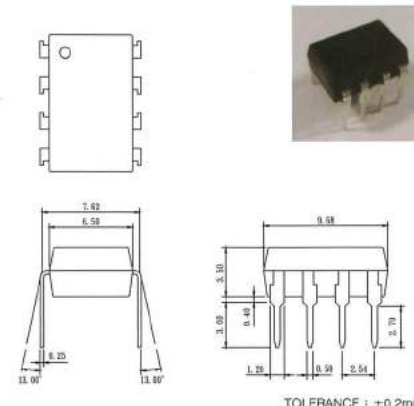
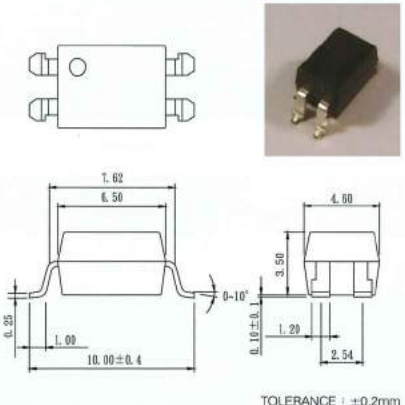
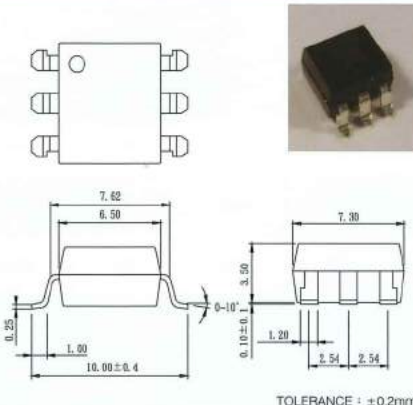
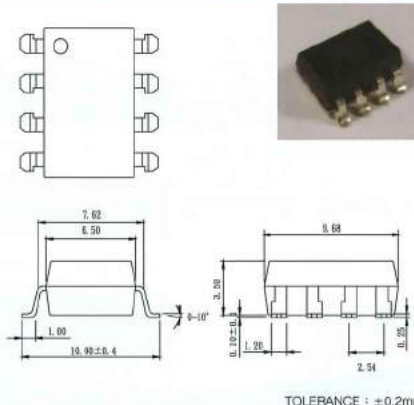
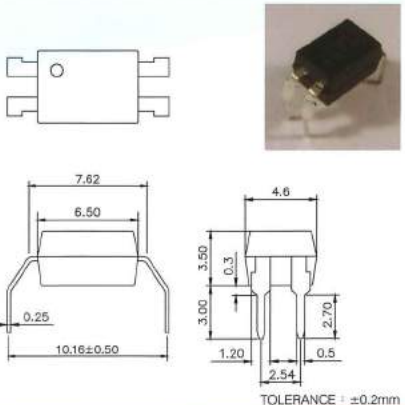
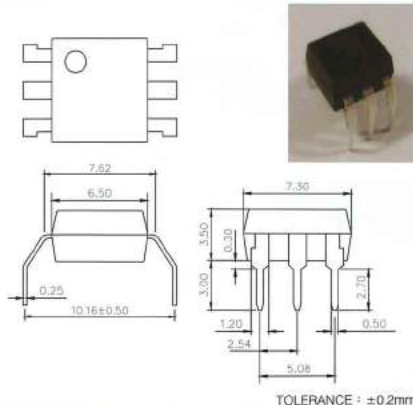
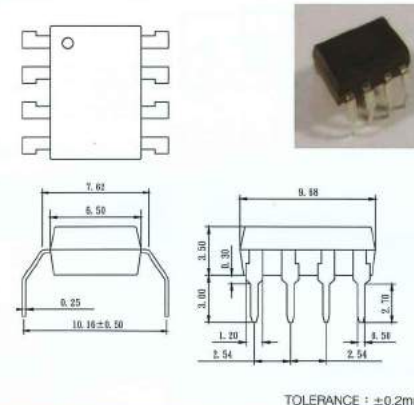
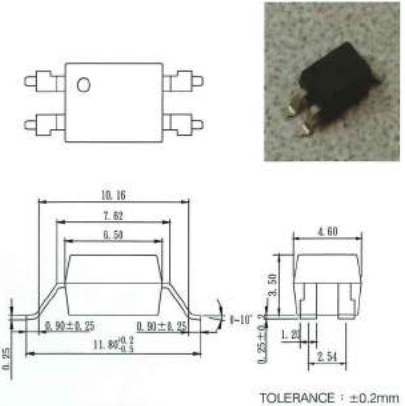
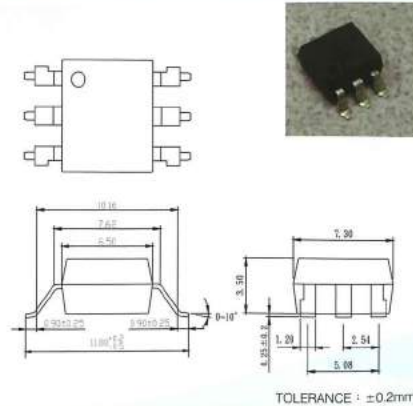
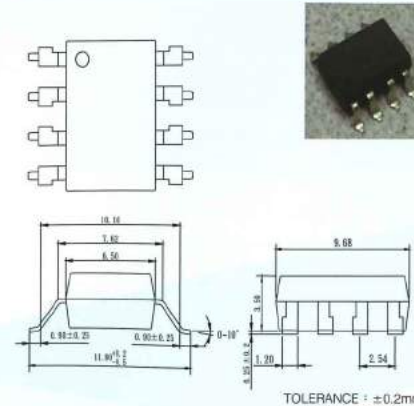
Model Number	Schematic	Contact Form	Coil Ratings				Electrical Characteristics						
			Coil Resistance +/- 10% Ω	Nominal Coil Voltage (VDC)	Must Operate (VDC)	Must Release (VDC)	Contact Resistance (mΩ max)	Insulation Resistance (Ω min)	Power Consumption (VA max)	Switching Voltage (VDC max)	Switching Current (A max)	Switching Breakdown Voltage (VDC min)	Breakdown Voltage (VDC min)
HS1A050M20		1 form A	175	5	3.75	0.5	150	10 ¹¹	10	1000	0.5	2000	4000
HS1A050M30		1 form A	175	5	3.75	0.5	150	10 ¹¹	10	1000	0.5	3000	4000
HS1A050M40		1 form A	175	5	3.75	0.5	150	10 ¹¹	10	1000	0.5	4000	4000
HS1A120M20		1 form A	500	12	9	1.2	150	10 ¹¹	10	1000	0.5	2000	4000
HS1A120M30		1 form A	500	12	9	1.2	150	10 ¹¹	10	1000	0.5	3000	4000
HS1A120M40		1 form A	500	12	9	1.2	150	10 ¹¹	10	1000	0.5	4000	4000

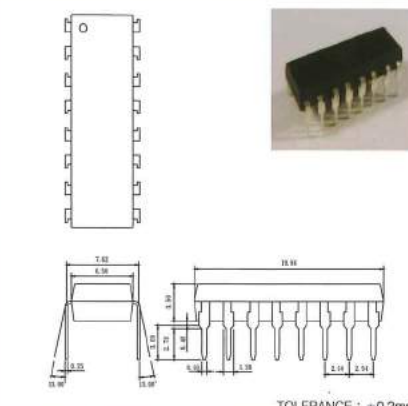
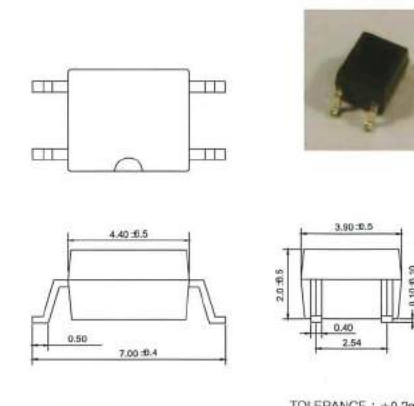
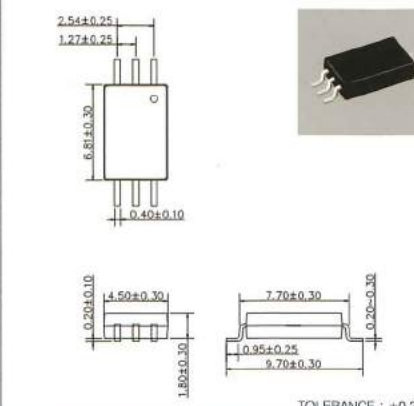
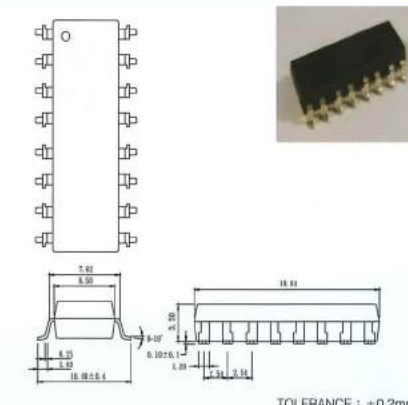
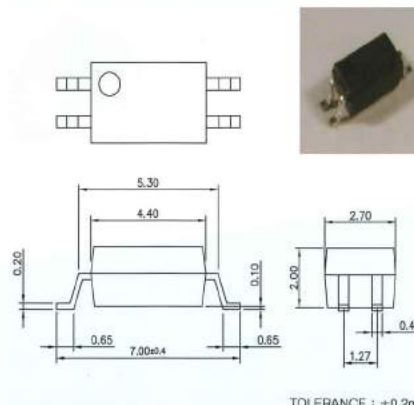
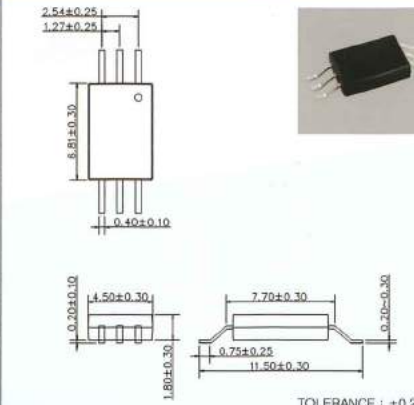
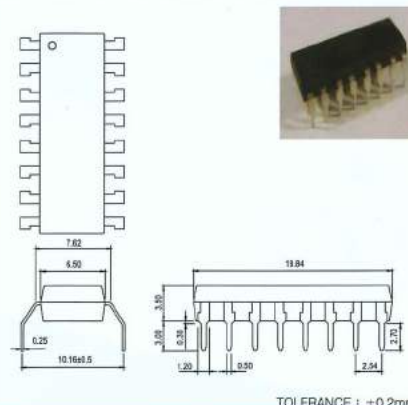
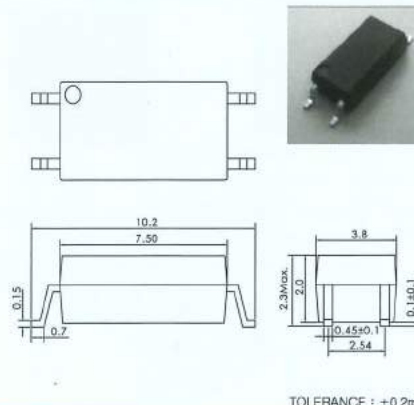
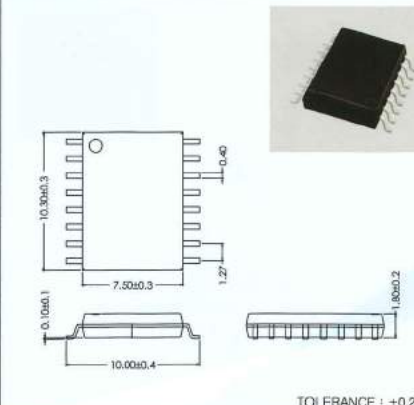
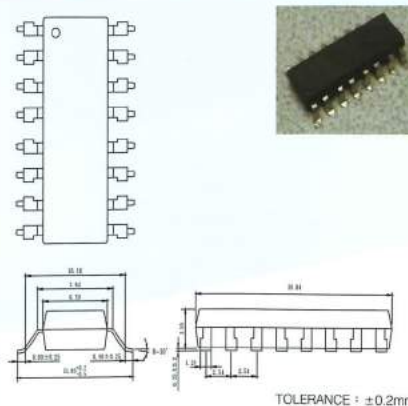
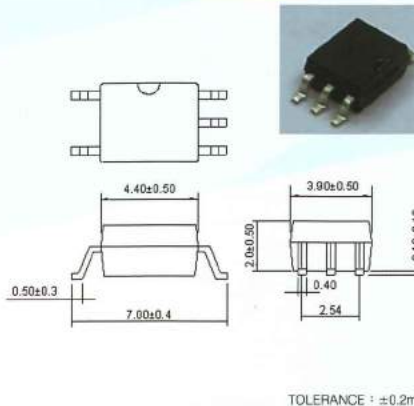
HD / HDS Type

Model Number	Schematic	Contact Form	Coil Ratings				Electrical Characteristics						
			Coil Resistance +/- 10% Ω	Nominal Coil Voltage (VDC)	Must Operate (VDC)	Must Release (VDC)	Contact Resistance (mΩ max)	Insulation Resistance (Ω min)	Power Consumption (VA max)	Switching Voltage (VDC max)	Switching Current (A max)	Switching Breakdown Voltage (VDC min)	Breakdown Voltage (VDC min)
HD1A030000		1 form A	65	3	2.5	0.5	150	10 ¹⁰	100	1000	1.0	3000	7000
HD1A050000		1 form A	80	5	3.75	0.5	150	10 ¹⁰	100	1000	1.0	3000	7000
HD1A120000		1 form A	475	12	9	1.2	150	10 ¹⁰	100	1000	1.0	3000	7000
HD1A240000		1 form A	1800	24	18	2.4	150	10 ¹⁰	100	1000	1.0	3000	7000
HDS1A030000		1 form A	65	3	2.5	0.5	150	10 ¹⁰	100	1000	1.0	3000	7000
HDS1A050000		1 form A	80	5	3.75	0.5	150	10 ¹⁰	100	1000	1.0	3000	7000
HDS1A120000		1 form A	475	12	9	1.2	150	10 ¹⁰	100	1000	1.0	3000	7000
HDS1A240000		1 form A	1800	24	18	2.4	150	10 ¹⁰	100	1000	1.0	3000	7000

Proximity Sensor Type												
Model Number	Schematic	Contact Form	Coil Resistance +/- 10% Ω	Total Pull-In Sensitivity (AT)	Must Operate (VDC)	Must Release (VDC)	Contact Resistance (m Ω max)	Insulation Resistance (Ω min)	Power Consumption (VA max)	Switching Voltage (VDC max)	Switching Current (A max)	Breakdown Voltage (VDC min)
P3-1A15		1 form A	—	10-40	—	—	150	10^9	1	24	0.1	150
P3-1A16		1 form A	—	10-40	—	—	150	10^9	1	24	0.1	150
P3-1A17		1 form A	—	10-40	—	—	150	10^9	1	24	0.1	150
P1-1A15 P010		250	—	—	—	—	250	—	10	200	0.5	250
Reed Sensor - MK Type												
Model Number	Schematic	Contact Form	Resistance +/- 5% Ω	Total Pull-In Sensitivity (AT)	Must Operate (VDC)	Must Release (VDC)	Contact Resistance (m Ω max)	Insulation Resistance (Ω min)	Power Consumption (VA max)	Switching Voltage (VDC max)	Switching Current (A max)	Breakdown Voltage (VDC min)
MK-0150		1 form A	150	10-40	—	—	150	10^9	1	24	0.1	150

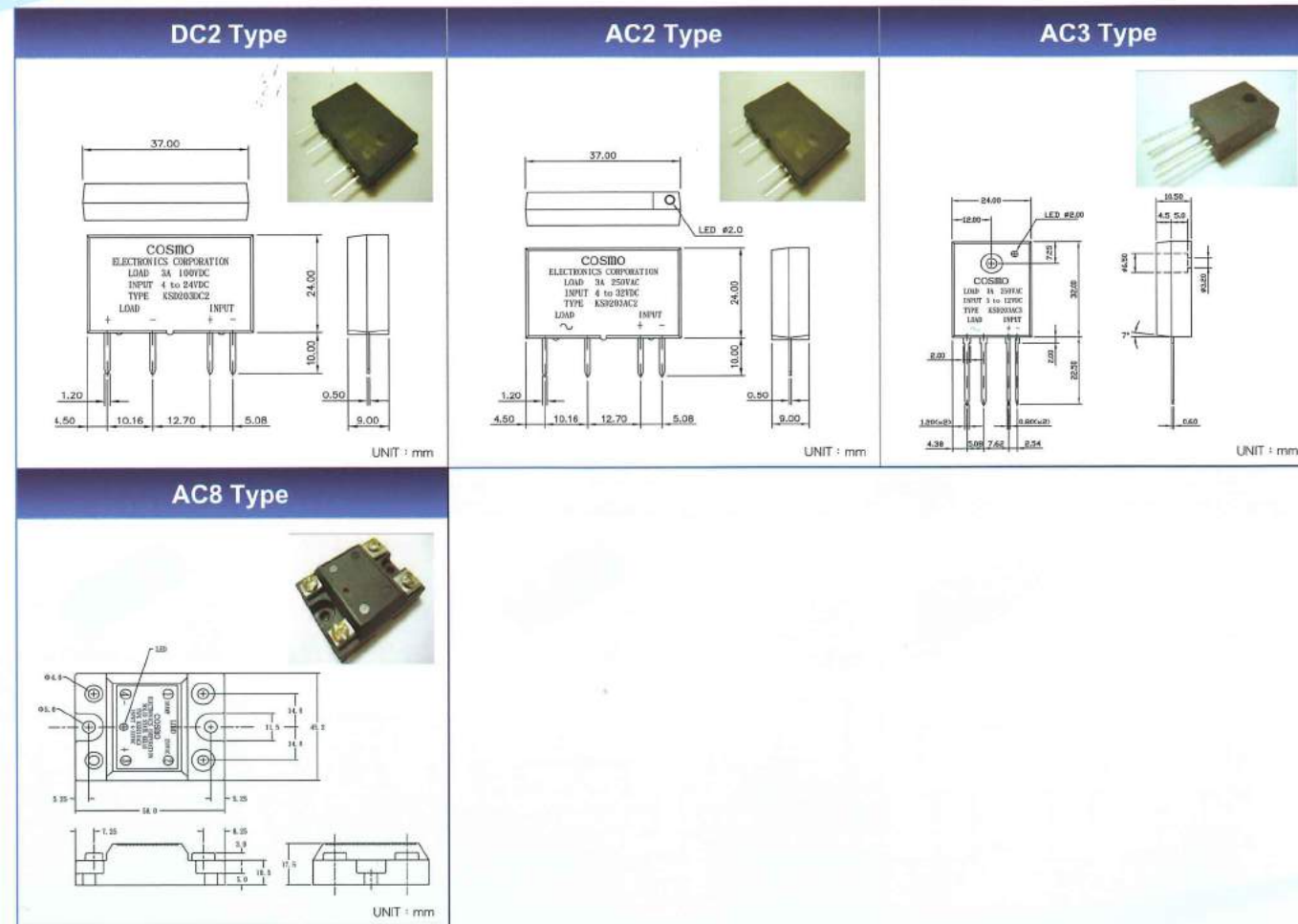
Triac Output											
Model Number	Schematic	Absolute Maximum Ratings						Electro-optical Characteristics			
		Input Voltage	Input Type	Output Voltage	Output Type	RMS on-state current (A)	Isolation voltage input to output (V)	On-state voltage (V max)	Leakage current (mA max)	Load Voltage Rating (VAC)	Zero Cross
KSD210AC8		4 ~ 32	VDC	250	VAC	10	4000	1.5	7	50~280	Y
KSD215AC8		4 ~ 32	VDC	250	VAC	15	4000	1.5	7	50~280	Y
KSD225AC8		4 ~ 32	VDC	250	VAC	25	4000	1.5	7	50~280	Y
KSD240AC8		4 ~ 32	VDC	250	VAC	40	4000	1.5	7	50~280	Y
KSD425AC8		4 ~ 32	VDC	480	VAC	25	4000	1.5	14	75~480	Y
KSD440AC8		4 ~ 32	VDC	480	VAC	40	4000	1.5	14	75~480	Y
KSA210AC8		100 ~ 240	VAC	250	VAC	10	4000	1.5	8	50~280	Y
KSA215AC8		100 ~ 240	VAC	250	VAC	15	4000	1.5	8	50~280	Y
KSA225AC8		100 ~ 240	VAC	250	VAC	25	4000	1.5	8	50~280	Y
KSA240AC8		100 ~ 240	VAC	250	VAC	40	4000	1.5	8	50~280	Y
KSA425AC8		100 ~ 240	VAC	480	VAC	25	4000	1.5	12	75~480	Y
KSA440AC8		100 ~ 240	VAC	480	VAC	40	4000	1.5	12	75~480	Y
KSD203AC3		5 ~ 12	VDC	250	VAC	3	4000	1.5	7	50~280	Y
KSD205AC3		5 ~ 12	VDC	250	VAC	5	4000	1.5	7	50~280	Y
KSD210AC3		5 ~ 12	VDC	250	VAC	10	4000	1.5	7	50~280	Y
KSD215AC3		5 ~ 12	VDC	250	VAC	15	4000	1.5	7	50~280	Y
KSD225AC3		5 ~ 12	VDC	250	VAC	25	4000	1.5	7	50~280	Y
KSD240AC3		5 ~ 12	VDC	250	VAC	40	4000	1.5	7	50~280	Y
KSD203AC2		4 ~ 32	VDC	250	VAC	3	4000	1.5	7	50~280	Y
Transistor Output											
Model Number	Schematic	Absolute Maximum Ratings						Electro-optical Characteristics			
		Input Voltage	Input Type	Output Voltage	Output Type	RMS on-state current (A)	Isolation voltage input to output (V)	On-state voltage (V max)	Leakage current (mA max)	Load Voltage Rating (VAC)	Zero Cross
KSD203DC2		4 ~ 24	VDC	100	VDC	3	4000	2	15	50	—

4-pin DIP Type  TOLERANCE : $\pm 0.2\text{mm}$	6-pin DIP Type  TOLERANCE : $\pm 0.2\text{mm}$	8-pin DIP Type  TOLERANCE : $\pm 0.2\text{mm}$
4-pin SMD Type  TOLERANCE : $\pm 0.2\text{mm}$	6-pin SMD Type  TOLERANCE : $\pm 0.2\text{mm}$	8-pin SMD Type  TOLERANCE : $\pm 0.2\text{mm}$
4-pin H Type  TOLERANCE : $\pm 0.2\text{mm}$	6-pin H Type  TOLERANCE : $\pm 0.2\text{mm}$	8-pin H Type  TOLERANCE : $\pm 0.2\text{mm}$
4-pin L Type  TOLERANCE : $\pm 0.2\text{mm}$	6-pin L Type  TOLERANCE : $\pm 0.2\text{mm}$	8-pin L Type  TOLERANCE : $\pm 0.2\text{mm}$

16-pin DIP Type  TOLERANCE : $\pm 0.2\text{mm}$	4-pin Mini - Flat Type  TOLERANCE : $\pm 0.2\text{mm}$	6-pin LSOP P Type  TOLERANCE : $\pm 0.2\text{mm}$
16-pin SMD Type  TOLERANCE : $\pm 0.2\text{mm}$	4-pin SSOP Type  TOLERANCE : $\pm 0.2\text{mm}$	6-pin LSOP W Type  TOLERANCE : $\pm 0.2\text{mm}$
16-pin H Type  TOLERANCE : $\pm 0.2\text{mm}$	4-pin LSOP TYPE  TOLERANCE : $\pm 0.2\text{mm}$	16-pin SOP Type  TOLERANCE : $\pm 0.2\text{mm}$
16-pin L Type  TOLERANCE : $\pm 0.2\text{mm}$	5-pin Mini - Flat Type  TOLERANCE : $\pm 0.2\text{mm}$	

4-pin SOP Type TOLERANCE : $\pm 0.2\text{mm}$	4-pin DIP Type TOLERANCE : $\pm 0.2\text{mm}$	4-pin SMD Type TOLERANCE : $\pm 0.2\text{mm}$
5-pin DIP Type TOLERANCE : $\pm 0.2\text{mm}$	5-pin SMD Type TOLERANCE : $\pm 0.2\text{mm}$	6-pin DIP Type TOLERANCE : $\pm 0.2\text{mm}$
6-pin SMD Type TOLERANCE : $\pm 0.2\text{mm}$	8-pin SOP Type TOLERANCE : $\pm 0.2\text{mm}$	8-pin DIP Type TOLERANCE : $\pm 0.2\text{mm}$
8-pin SMD Type TOLERANCE : $\pm 0.2\text{mm}$		

DIP Type TOLERANCE : $\pm 0.1\text{mm}$	DH Type TOLERANCE : $\pm 0.1\text{mm}$	SIP Type TOLERANCE : $\pm 0.1\text{mm}$
SSIP Type TOLERANCE : $\pm 0.1\text{mm}$	HD Type TOLERANCE : $\pm 0.2\text{mm}$	HDS Type TOLERANCE : $\pm 0.2\text{mm}$
HS Type TOLERANCE : $\pm 0.2\text{mm}$	P3-1A15 Type TOLERANCE : $\pm 0.2\text{mm}$	P3-1A16 Type UNIT : mm
P3-1A17 Type UNIT : mm	P1-1A15 Type UNIT : mm	MK Type TOLERANCE : $\pm 0.1\text{mm}$



CrossReference

ONSEMI/ FAIRCHILD	cosmo	ONSEMI/ FAIRCHILD	cosmo	RENESAS/ NEC	cosmo	VISHAY	cosmo
FOD785	K1010	HCPL2611	KPC2611	PS2501	K1010	SFH640	K3010
FOD817	K1010	FOD260L	KPC2611	PS2561	K1010	K814P	K3010
FODM100X	KT101X	FOD611	KPC611	PS2571	K1010	SFH620	K3010
H11A1	K2010	FODM8061	KPC611	PS2581	K1010	SFH6206	K3010
CNY17	K2010	FOD8163	KT060LP	PS2513	K1010	SFH628	K3010
TIL111	K2010	FOD8163T	KT060LW	PS2503	K1010T	SFH6286	K3010
TIL117	K2010	FODM8071	KPC615	PS2505	K3010	TCET1600	K3010
CNY17F	KP2110	H11Lx	H11Lx	PS2565	K3010	SFH619A	KP4010
MCT6	KP1020	FOD8480	KT0480P	PS2381-1	KT101X	TCED1100	KP4010
MCT9001	KP1020	FOD8480T	KT0480W	PS2502	KPC815	H11AA1	KP6010
FOD814	K3010	FOD8482	KT0480P	PS2705-1	KPC354NT	4N32	KPC4N33
H11AA814	K3010	FOD8482T	KT0480W	PS2702-1	KPC355NT	4N33	KPC4N33
FOD852	KP4010	FOD8342	KT0341P	PS2701-1	KPC357NT	K815P	KPC815
H11G1M	KP5010	FOD8342T	KT0341W	PS2761-1	KPC357NT	VO618A	K1010T
H11G2M	KP5010	FOD8343	KT0343P	PS2711-1	KPC357NTOT	VOL618A	KT101T
H11AA1	KP6010	FOD8343T	KT0343W	PS2733-1	KPC452	SFH691AT	KPC354NT
H11AA2	KP6010	FOD3120	KP1510	PS9113	KPC457	SFH690XT	KPC357NT
FODM121	KPC357NT	MOC3061M	KMOC3061	PS9513	KPC6N136	VOL617A	KT101X
FODM124	KPC357NT	MOC3062M	KMOC3062	PS2801-1	KPS2801	TCLD1000	KT1210
FODM2701	KPC357NT	MOC3063M	KMOC3063	PS2861B-1	KPS2801	6N135	KPC6N135
FODM2705	KPC354NT	MOC3081M	KMOC3081	PS2811-1	KPS28010T	6N136	KPC6N136
FODM214	KPS2801	MOC3082M	KMOC3082	PS2802-1	KPS2802	6N137	KPC6N137
FODM8801	KPS2801	MOC3083M	KMOC3083	PS2805-1	KPS2805	6N139	KPC6N139
HM-HA281	KPS2801	FODM3022	KTLP160G	PS2806-1	KPS2806	K3021P	KMOC3021
FODM217	KPS2805	FODM3052	KTLP160J	PS2833-1	KPS2832	K3022P	KMOC3022
HM-HAA280	KPS2805	FODM3063	KTLP161J	PS8302	KT050LP	K3023P	KMOC3023
4N29	KPC4N33	FODM3083	KTLP161L	PS8302	KT050LW	VO3052	KMOC3052
4N30	KPC4N33	FOD8332	KT332J	PS9587	KPC2611	VO3053	KMOC3053
4N32	KPC4N33	FOD8333	KT333J	PS9117A	KPC611	VO3062	KMOC3062
4N33	KPC4N33	FOD8334	KT5214	PS9124	KPC611	VO3063	KMOC3063
H11B1	KPC4N33			PS9121	KPC611	VOM160R	KTLP160J
TIL113	KPC4N33			PS9324L	KT060LP	SFH615A	K1010
FOD3120	KP1510			PS9317	KT060LW	SFH617A	K1010
6N135	KPC6N135			PS9587	KT060LW	TCET1100	K1010
6N136	KPC6N136			PS9123	KPC615	VO615A	K1010
6N137	KPC6N137			PS9151	KPC615	VO617A	K1010
6N138	KPC6N138			RV1S9160A	KPC615	CNY117	K2010
6N139	KPC6N139			RV1S9161A	KPC483	CNY17	K2010
MOC3021M	KMOC3021			PS9303L	KT0480P	CNY117F	KP2110
MOC3022M	KMOC3022			PS9309L	KT0480W	CNY17F	KP2110
MOC3023M	KMOC3023			PS9113	KPC456	MOC8101	KP2110
MOC3041M	KMOC3041			PS9307A	KT0314P	SFH640	KP2210
MOC3042M	KMOC3042			PS9307A	KT0314W	VOH1016A	H11Lx
MOC3043M	KMOC3043			PS9331	KT0341P	VO3120	KP1510
MOC3051M	KMOC3051			PS9331	KT0341W		
MOC3052M	KMOC3052			P9531	KP1510		
MOC3053M	KMOC3053			PS9402	KT332J		
HCPL2601	KPC2611						

CrossReference

TOSHIBA	cosmo
TLP630	KP6010
TLP630	KP6010
TLP183	KPS28010T
TLP352	KTLP350
TLP184	KPC354NT
TLP185	KPC357NT
TLP187	KPC452
TLPN137	KPC6N137
TLP2362	KPC410
TLP2309	KPC457
TLP293	KPS2801
TLP292	KPS2805
TLP361J	KMOC3012
TLP363J	KMOC3012
TLP3052A	KMOC3022
TLP3052A	KMOC3023
TLP3052A	KMOC3052
TLP3062A	KMOC3062
TLP3063A	KMOC3063
TLP3083	KMOC3082
TLP3783	KMOC3083
TLP265J	KTLP160G
TLP265J	KTLP160J
TLP265J	KTLP165J
TLP265J	KTLP260J
TLP266J	KTLP161G
TLP266J	KTLP161J
TLP166J	KTLP166J
TLP268J	KTLP168J
TLP785	K1010
TLP785F	K1010
TLP620	K3010
TLP620F	K3010
TLP626	K3010
TLP627M	KP4010
TLP781	K1010
TLP781F	K1010
TLP719	KT050LP
TLP719F	KT050LW
TLP2362	KPC611
TLP2391	KPC615
TLP2361	KPC615
TLP2366	KPC615
TLP2358	KPC483
TLP2355	KPC484
TLP718	KT0480P
TLP718F	KT0480W
TLP715	KT0481P

TOSHIBA	cosmo
TLP715	KT0481W
TLP2304	KPC456
TLP109	KPC456
TLP155E	KPC315
TLP5701	KT0314P
TLP5751	KT0314W
TLP5771	KT0314W
TLP700H	KT0341P
TLP700A	KT0341W
TLP700HF	KT0341W
TLP700AF	KT0341W
TLP5754	KT0343P
TLP5774	KT0343W
TLP350	KP1510
TLP5212	KT332J
TLP5222	KT333J
TLP5214A	KT5214

LITEON	cosmo
LTV-817	K1010
LTV-816	K1010
4N25	K2010
4N26	K2010
4N27	K2010
4N28	K2010
4N35	K2010
4N37	K2010
CNY17-1	K2010
CNY17-2	K2010
CNY17-3	K2010
CNY17-4	K2010
LTV-702V	K2010
CNY17F-1	KP2110
CNY17F-2	KP2110
CNY17F-3	KP2110
CNY17F-4	KP2110
LTV-702F	KP2110
LTV-814	K3010
LTV-852	KP4010
LTV-725V	KP5010
LTV-815	KPC815
LTV-354T	KPC354NT
LTV-355T	KPC355NT
LTV-357T	KPC357NT
LTV-352T	KPC452
LTV-217	KPS2801
MOC3021	KMOC3021
MOC3022	KMOC3022
MOC3023	KMOC3023
MOC3052	KMOC3052
MOC3063	KMOC3063
MOC3083	KMOC3083
LTV-50LP	KT050LP
LTV-50LW	KT050LW
6N137-L	KPC2611
LTV-M601	KPC611
LTV-60LP	KT060LP
LTV-60LW	KT060LW
H11Lx	H11Lx
LTV-400	KPC400
LTV-480P	KT0480P
LTV-480W	KT0480W
LTV-480P	KT0481P
LTV-480W	KT0481W
LTV-M456	KPC456
LTV-155E	KPC315
LTV-0314P	KT0314P

LITEON	cosmo
LTV-0314W	KT0314W
LTV-0341P	KT0341P
LTV-0341W	KT0341W
LTV-3120	KP1510
LTV-332J	KT332J
LTV-333J	KT5214

CrossReference

EVERLIGHT	cosmo
EL816	K1010
EL817	K1010
EL851	KP1210
4N25	K2010
4N26	K2010
4N27	K2010
4N28	K2010
4N35	K2010
4N36	K2010
4N37	K2010
4N38	K2010
CNY17-1	K2010
CNY17-2	K2010
CNY17-3	K2010
CNY17-4	K2010
H11A1	K2010
H11A2	K2010
H11A3	K2010
H11A4	K2010
H11A5	K2010
TIL113	K2010
CNY17F-1	KP2110
CNY17F-2	KP2110
CNY17F-3	KP2110
CNY17F-4	KP2110
EL814	K3010
EL852	KP4010
H11AA1	KP6010
H11AA2	KP6010
H11AA3	KP6010
H11AA4	KP6010
4N29	KPC4N33
4N30	KPC4N33
4N31	KPC4N33
4N32	KPC4N33
4N33	KPC4N33
H11B1	KPC4N33
H11B2	KPC4N33
H11B3	KPC4N33
H11B255	KPC4N33
TIL113	KPC4N33
EL815	KPC815
EL3120	KP1510
EL354N-G	KPC354NT
EL357N_G	KPC357NT

EVERLIGHT	cosmo
EL452_G	KPC452
EL1010	KT101X
ELM600	KPC410
ELM452	KPC457
EL3H7_G	KPS2801
EL3H4_G	KPS2805
ELT3052	KMOC3011
ELT3062	KMOC3012
EL3021	KMOC3021
EL3022	KMOC3022
EL3023	KMOC3023
EL3041	KMOC3041
EL3042	KMOC3042
EL3043	KMOC3043
EL3051	KMOC3051
EL3052	KMOC3052
EL3053	KMOC3053
EL3061	KMOC3061
EL3062	KMOC3062
EL3063	KMOC3063
EL3081	KMOC3081
EL3082	KMOC3082
EL3083	KMOC3083
ELM3022	KTLP160G
ELM3052	KTLP160J
ELM3042	KTLP161G
ELM3062	KTLP161J
ELM3064	KTLP168J
ELS511	KT050LP
ELS511	KT050LW
EL2611	KPC2611
ELM601	KPC611
ELM611	KPC611
ELS611	KT060LP
ELS611	KT060LW
ELM80L	KPC615
ELM81L	KPC615
H11Lx	H11Lx
ELS680	KT0480P
ELS680	KT0480W
ELM456	ELM456
ELS3150	KT0314P
ELS3150	KT0314W
ELS3120	KT0341P
ELS3120	KT0341W
EL3120	KP1510

Broadcom/Avago	cosmo
HCPL-817	K1010
4N25	K2010
CNY17	K2010
HCPL-814	K3010
HCPL-3120	KP1510
ACPL-T350	KTLP350
HCPL-354	KPC354NT
HCPL-181	KPC357NT
6N135	KPC6N135
6N136	KPC6N136
6N137	KPC6N137
6N138	KPC6N138
6N139	KPC6N139
HCPL-M600	KPC410
HCPL-M452	KPC457
HCPL-050LP	KT050LP
HCPL-050LW	KT050LW
HCPL-2601	KPC2611
HCPL-2611	KPC2611
HCPL-M60L	KPC611
HCPL-M611	KPC611
ACPL-W60L	KT060LW
ACPL-P611	KT060LP
ACPL-W611	KT060LW
ACPL-M72U	KPC615
ACPL-M483	KPC483
ACPL-M484	KPC484
ACPL-P480	KT0480P
ACPL-W480	KT0480W
ACPL-P481	KT0481P
ACPL-W481	KT0481W
HCPL-M456	KPC456
ACPL-314P	KT0314P
ACPL-314W	KT0314W
ACPL-341P	KT0341P
ACPL-314W	KT0341W
ACPL-343P	KT0343P
ACPL-343W	KT0343W
ACPL-330J	KT330J
ACPL-331J	KT331J
ACPL-332J	KT332J
ACPL-333J	KT333J
ACPL-334J	KT5214

SHARP	cosmo
PC3H71	KPS2801W
PC3H3	KPS2805
S2S3000F	KTLP160J
S2S4000F	KTLP161J
PR26MF11NSZF	KTLP3502
PR36MF51NSZF	KTLP3506
PR3BMF51NSKF	KTLP3616
PR26MF21NSZF	KTLP3503
PR36MF21NSZF	KTLP3507
PR3BMF21NSZF	KTLP3617
PC123	K1010
PC817	K1010
PC851	KP1210
PC852	KP4010
PC8171	K1010W
PC354N	KPC354NT
PC355N	KPC355NT
PC357N	KPC357NT
PC452	KPC452
PC410L0NIP0F	KPC410
PC457L0NIP0F	KPC457
PC3H7	KPS2801

CrossReference

PANASONIC	cosmo
AQY212GH	KAQY212GS
AQY212S	KAQY212S
AQY212GS	KAQY212GS
AQY212EH	KAQY212
AQY214S	KAQY214S
AQY214EH	KAQY214
AQY216EH	KAQY216
AQV212S	KAQV212S
AQV212	KAQV212
AQV217S	KAQV217S
AQV217	KAQV217
AQV214S	KAQV214S
AQV214	KAQV214
AQV214EH	KAQV214
AQV216S	KAQV216S
AQV216	KAQV216
AQW212S	KAQW212S
AQW212	KAQW212
AQW212EH	KAQW212
AQW217	KAQW217
AQW214S	KAQW214S
AQW214	KAQW214
AQW214EH	KAQW214
AQW216	KAQW216
AQW216EH	KAQW216
AQV253	KAQV253
AQV253H	KAQV253
AQV254	KAQV254
AQV254H	KAQV254
AQV258H	KAQV258
AQY412S	KAQY412S
AQY412EH	KAQY412
AQY414S	KAQY414S
AQY414EH	KAQY414
AQV412EH	KAQV412
AQV414S	KAQV414S
AQV414	KAQV414
AQV414EH	KAQV414
AQW414S	KAQW414S
AQW414	KAQW414
AQW414EH	KAQW414
AQW612S	KAQW612S
AQW612EH	KAQW612
AQW614	KAQW614
AQW614EH	KAQW614

RENESAS/NEC	cosmo
PS7241E-1A	KAQY214S
PS7341-1A	KAQV214
PS7360-1A	KAQV216
PS7122A-2A	KAQW212
PS7241-2A	KAQW214S
PS7141-2A	KAQW214
PS7160-2A	KAQW216
PS7122A-1A	KAQV253

Broadcom/AVAGO	cosmo
ASSR-1219-001E	KAQV212
ASSR-3211-001E	KAQV213
ASSR-4119-001E	KAQV214
ASSR-1228-002E	KAQW212
ASSR-3220-002E	KAQW213
ASSR-4128-002E	KAQW214

OMRON	cosmo
G3VM-61A1	KAQY212
G3VM-201G1	KAQY217S
G3VM-401G	KAQY214S
G3VM-401A	KAQY214
G3VM-601G	KAQY216S
G3VM-61H1	KAQV212S
G3VM-61B1	KAQV212
G3VM-201H1	KAQV217S
G3VM-401H	KAQV214S
G3VM-401B	KAQV214
G3VM-401BY	KAQV214
G3VM-601BY	KAQV216
G3VM-202J1	KAQW217S
G3VM-402J	KAQW214S
G3VM-402C	KAQW214
G3VM-353G	KAQY414S
G3VM-353A	KAQY414
G3VM-353H	KAQV414S
G3VM-353B	KAQV414
G3VM-354J	KAQW414S
G3VM-354C	KAQW414
G3VM-355JR	KAQW614S
G3VM-355CR	KAQW614

TOWARD	cosmo
AB27S	KAQY212GS
AB37S	KAQY212S
AB34S	KAQY217S
AB30S	KAQY214S
AB30	KAQY214
AA37	KAQV212
AA34	KAQV217
AA30	KAQV214
AA38	KAQV216
AC37	KAQW212
AA27	KAQV212G
AC34	KAQW217
AC30S	KAQW214S
AC30	KAQW214
AC38	KAQW216
AG74S	KAQY414S
AG74	KAQY414
AE74	KAQV414
AH74S	KAQW414S
AH74	KAQW414
AA40	KAQV258
AA40	KAQV271
AA58	KAQV272

Littelfuse	cosmo
CPC1019N	KAQY212GS
CPC1018N	KAQY212GS
CPC1014N	KAQY212S
CPC1025N	KAQY214S
CPC1390	KAQY214
CPC1394	KAQY216
LCA710	KAQV212G
PLA110	KAQV214
PLA190	KAQV214
PLA193	KAQV216
CPC2014N	KAQW212S
CPC2025N	KAQW214S
PAA110L	KAQW214
CPC1017N	KCP1017
CPC1008N	KCP1008
PLB190	KAQV414
CPC2125N	KAQW414S
XBB170	KAQW414

CrossReference

TOSHIBA	cosmo
TLP176AM	KAQY212GS
TLP3127	KAQY212GS
TLP3122	KAQY212GS
TLP176AM	KAQY212S
TLP240A	KAQY212
TLP176D	KAQY217S
TLP240D	KAQY217
TLP176GA	KAQY214S
TLP224GA	KAQY214
TLP240GA	KAQY214
TLP240J	KAQY216
TLP197D	KAQV217S
TLP197GA	KAQV214S
TLP797GA	KAQV214
TLP797J	KAQV216
TLP200D	KAQW217S
TLP206GA	KAQW214S
TLP224GA-2	KAQW214
TLP798GA	KAQV254

Vishay	cosmo
LH1546AEF	KAQY214S
LH1546ADF	KAQY214
LH1540AAB	KAQV214
LH1546AAB	KAQV214
LH1522AB	KAQW412
LH1501BT	KAQV414
LH1520AB	KAQW414

Infineon	cosmo
PVT312	KAQV213
PVT412	KAQV214
PVT322A	KAQW213
PVT422P	KAQW214S
PVT422	KAQW214

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