



# MOS RELAY EPR SERIES

E236930, 
 E155181(R)

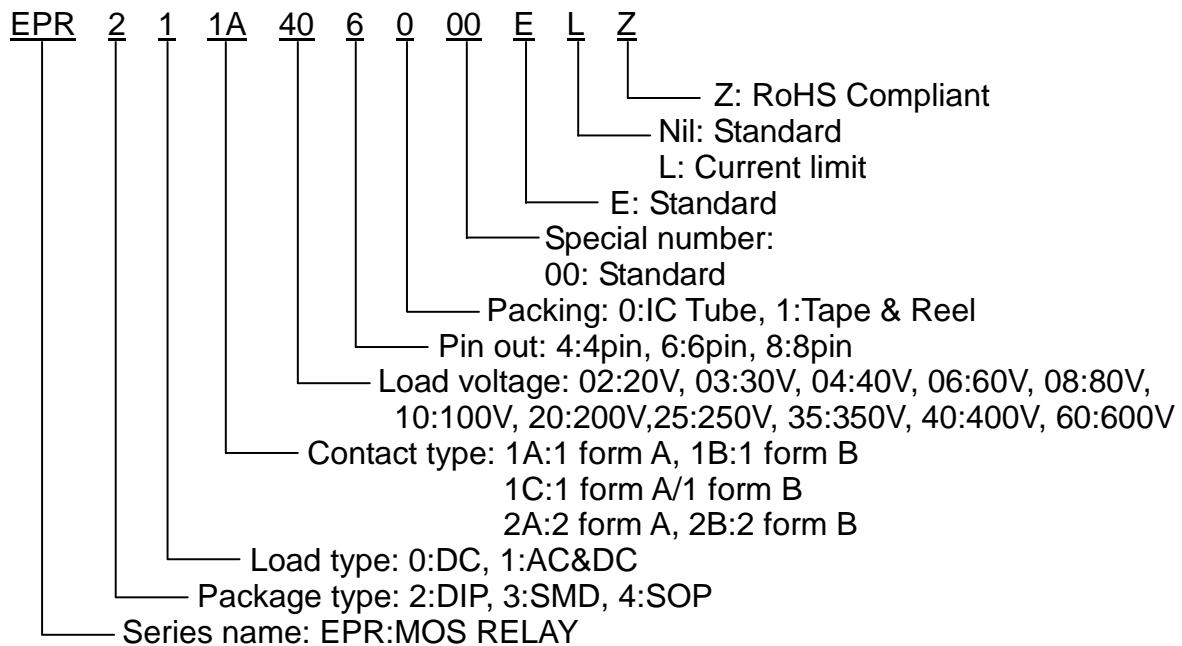
## FEATURES

- No EMI/RFI generation
- High reliability
- No moving parts
- Low drive power requirement (TTL/CMOS compatible)
- Low On-state resistance
- High isolation voltage
- Arc-free with no snubbing circuits
- Machine insertable or wave solderable

## APPLICATIONS

- Telecommunications
- Instrumentation
- Medical equipment
- Security
- Industrial control

## PART NUMBER SYSTEM



DIP TYPE



SMD TYPE

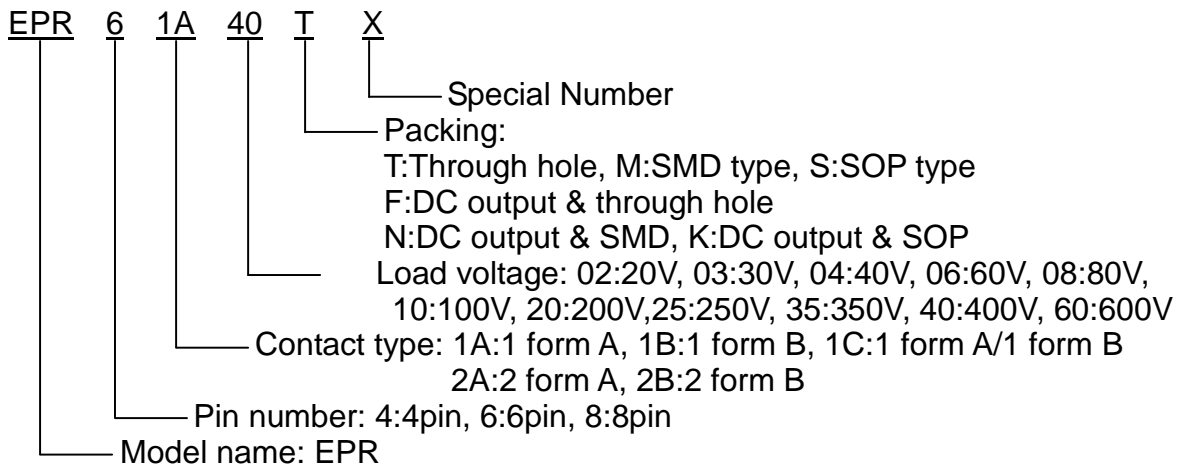


SOP TYPE

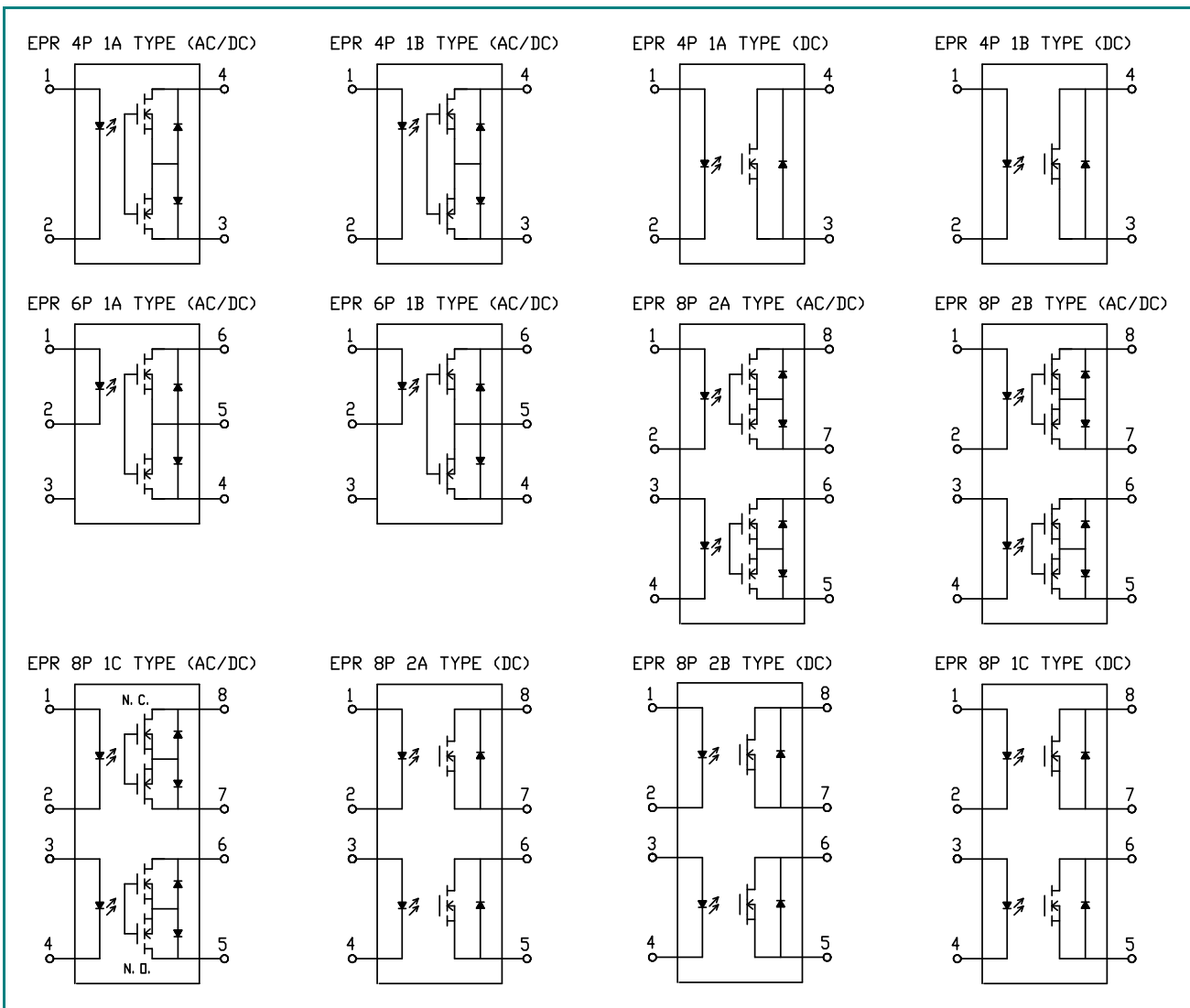




## MARKING SYSTEM



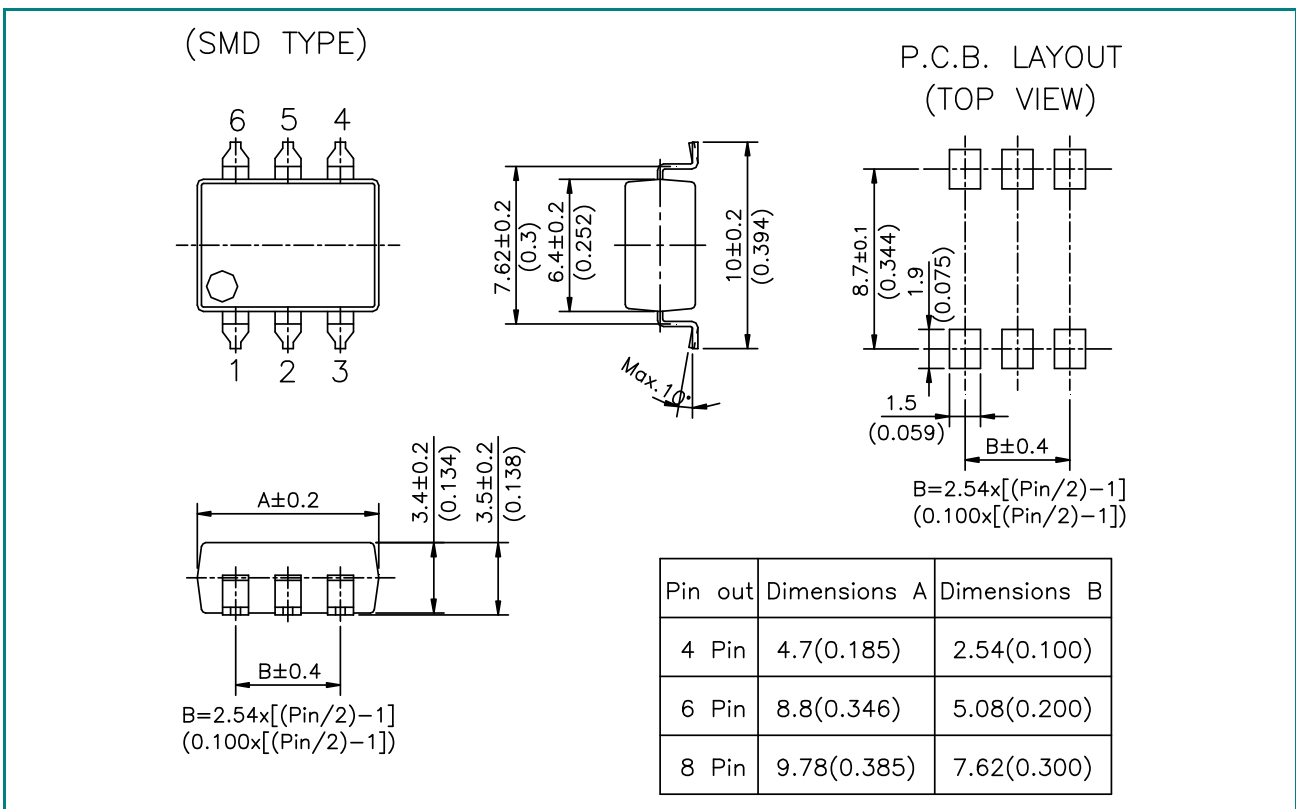
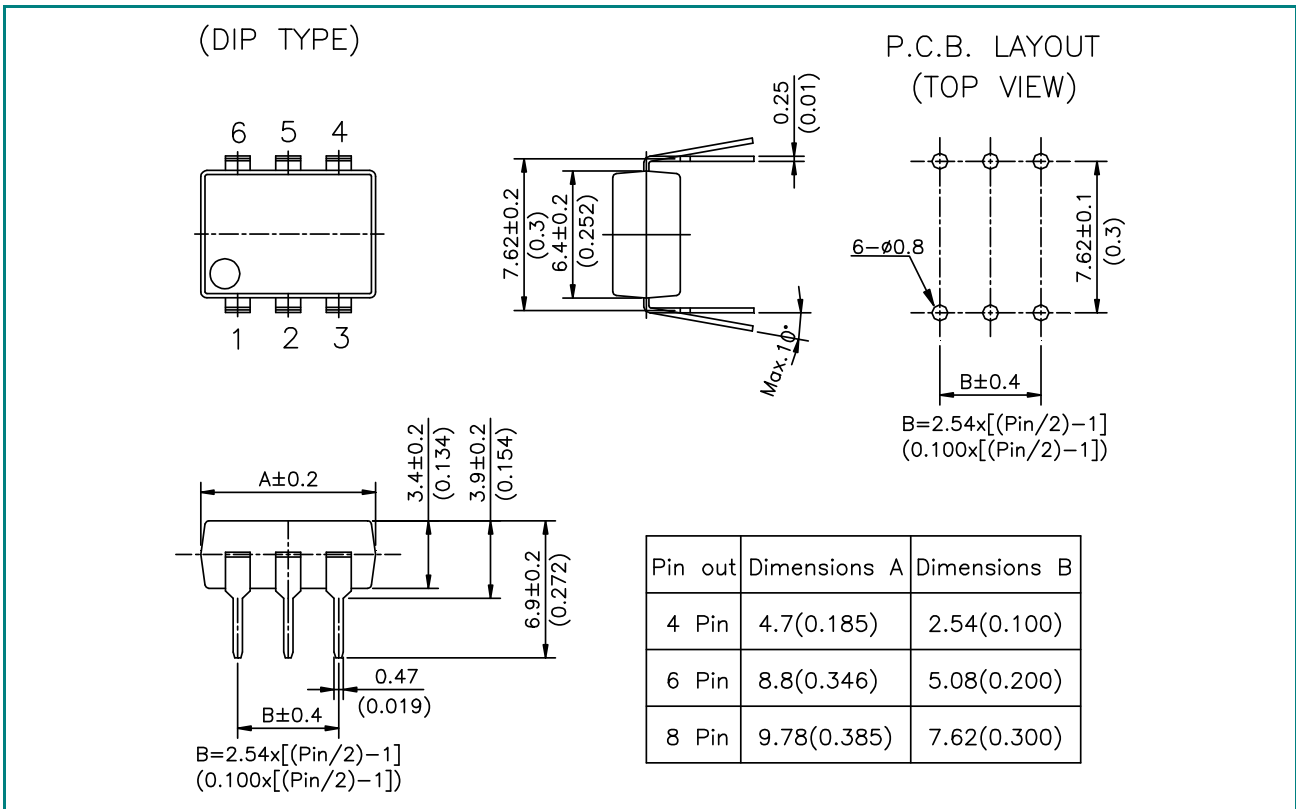
## CIRCUIT DIAGRAM





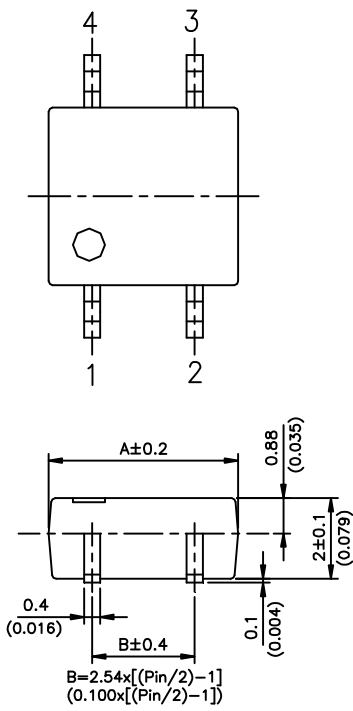


**■ DIMENSIONS UNIT:mm(inch)**

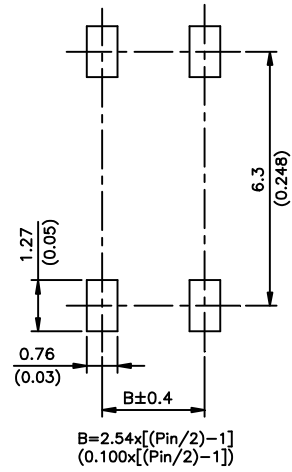




(SOP TYPE)



P.C.B. LAYOUT (TOP VIEW)



Pin out	Dimensions A	Dimensions B
4 Pin	4.7(0.185)	2.54(0.100)
6 Pin	6.30(0.248)	5.08(0.200)
8 Pin	9.3(0.366)	7.62(0.300)



## ■ SPECIFICATIONS (@25°C / Initial):

Part Number (4 PIN) (6 PIN) (8 PIN)	DIP	EPR	211A034005	211A034006	211A044005	----- 211A046006 -----	----- 211A046007 -----
	SMD		211A036005	211A036006	211A046005	----- 311A046X06 -----	----- 311A046X07 -----
			212A038005	212A038006	212A048005		
	SMD		311A034X05	311A034X06	311A044X05	----- 311A046X06 -----	----- 311A046X07 -----
	SOP		311A036X05	311A036X06	311A046X05	----- ----- -----	----- ----- -----
			312A038X05	312A038X06	312A048X05		
	SOP		411A034X05	-----	411A044X05	-----	-----
			411A036X05	411A036X06	411A046X05	-----	-----
			412A038X05	-----	412A048X05	-----	-----
Contact form	4PIN / 6PIN		1A	1A	1A	1A	1A
	8PIN		2A	2A	2A	---	---
Input Characteristics							
Forward voltage (V)(V <sub>F</sub> )			0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5
Reverse voltage at 10μA (V)(V <sub>R</sub> )			5	5	5	5	5
Control current (mA)(I <sub>F</sub> )			10-50	10-50	10-50	10-50	10-50
Output Characteristics							
Load voltage (V)(AC peak or DC)(V <sub>L</sub> )			30	30	40	40	40
Continuous rated load current (mA)(I <sub>L</sub> )	SOP		1300	2500	1600	---	---
	SMD/DIP		1800	3000	2000	3500	4500
Peak current (mA)(I <sub>L-Peak</sub> )	SOP		2000	5000	2500	---	---
	SMD/DIP		2000	5000	2500	6500	7500
On-state resistance Max. (Ω)(R <sub>ON</sub> )			0.5	0.2	0.5	0.07	0.05
Off-state leakage current (μA) (I <sub>LK</sub> )			1	1	1	1	1
Turn-on (msec)(T <sub>ON</sub> )			5	5	5	5	5
Turn-off (msec)(T <sub>OFF</sub> )			2	2	2	2	2
Capacitance (pF)(C <sub>OUT</sub> )			300	---	---	---	---
Current limit typ. (mA)			---	---	---	---	---
Input / Output Characteristics							
I/O Capacitance (pF)(C <sub>I/O</sub> )			5	5	5	5	5
I/O Isolation voltage (VAC)(V <sub>I/O</sub> )	SOP		2500	2500	2500	2500	2500
	SMD/DIP		3750	3750	3750	3750	3750
I/O Isolation resistance (GΩ)(R <sub>I/O</sub> )			5	5	5	5	5
Temperature limits	Operating (T <sub>OP</sub> )	-40°C to +85°C (-40°F to +185°F)					
	Storage (T <sub>STG</sub> )	-40°C to +100°C (-40°F to +212°F)					



Part Number (4 PIN) (6 PIN) (8 PIN)	DIP	EPR	211A064000	211A064001	211A064002	211A064005	211A064009
	SMD		211A066000	211A066001	211A066002	211A066005	211A066009
			212A068000	212A068001	212A068002	212A068005	212A068009
	SOP		311A064X00	311A064X01	311A064X02	311A064X05	311A064X09
			311A066X00	311A066X01	311A066X02	311A066X05	311A066X09
			312A068X00	312A068X01	312A068X02	312A068X05	312A068X09
			411A064X00	411A064X01	411A064X02	411A064X05	411A064X09
			411A066X00	411A066X01	411A066X02	411A066X05	411A066X09
			412A068X00	412A068X01	412A068X02	412A068X05	412A068X09
Contact form	4PIN / 6PIN		1A	1A	1A	1A	1A
	8PIN		2A	2A	2A	2A	2A
Input Characteristics							
Forward voltage (V)(V <sub>F</sub> )			0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5
Reverse voltage at 10μA (V)(V <sub>R</sub> )			5	5	5	5	5
Control current (mA)(I <sub>F</sub> )			5-50	5-50	5-50	10-50	5-50
Output Characteristics							
Load voltage (V)(AC peak or DC)(V <sub>L</sub> )			60	60	60	60	60
Continuous rated load current (mA)(I <sub>L</sub> )	SOP		500	120	120	900	500
	SMD/DIP		550	120	120	1100	550
Peak current (mA)(I <sub>L-Peak</sub> )	SOP		1000	250	250	1500	1000
	SMD/DIP		1000	250	250	1500	1000
On-state resistance Max. (Ω)(R <sub>ON</sub> )			1.4	16	8	0.7	1.4
Off-state leakage current (μA) (I <sub>LK</sub> )			1	1	1	1	1
Turn-on (msec)(T <sub>ON</sub> )			1	1.5	1.5	5	1
Turn-off (msec)(T <sub>OFF</sub> )			1	1	1	2	1
Capacitance (pF)(C <sub>OUT</sub> )			150	25	25	300	150
Current limit typ. (mA)			---	---	---	---	---
Input / Output Characteristics							
I/O Capacitance (pF)(C <sub>I/O</sub> )			5	5	5	5	5
I/O Isolation voltage (VAC)(V <sub>I/O</sub> )	SOP		2500	2500	2500	2500	3000
	SMD/DIP		3750	3750	3750	3750	5000
I/O Isolation resistance (GΩ)(R <sub>I/O</sub> )			5	5	5	5	5
Temperature limits	Operating (T <sub>OP</sub> )	-40°C to +85°C (-40°F to +185°F)					
	Storage (T <sub>STG</sub> )	-40°C to +100°C (-40°F to +212°F)					



Part Number (4 PIN) (6 PIN) (8 PIN)	DIP	EPR	211A084000	211A084009	211A104000	211A104005	211A104009
	SMD		211A086000	211A086009	211A106000	211A106005	211A106009
			212A088000	212A088009	212A108000	212A108005	212A108009
SOP	EPR	311A084X00	311A084X09	311A104X00	311A104X05	311A104X09	
		311A086X00	311A086X09	311A106X00	311A106X05	311A106X09	
		312A088X00	312A088X09	312A108X00	312A108X05	312A108X09	
SOP	EPR	411A084X00	411A084X09	411A104X00	-----	411A104X09	
		411A086X00	411A086X09	411A106X00	411A106X05	411A106X09	
		412A088X00	412A088X09	412A108X00	-----	412A108X09	
Contact form	4PIN / 6PIN	1A	1A	1A	1A	1A	
	8PIN	2A	2A	2A	2A	2A	
Input Characteristics							
Forward voltage (V)(V <sub>F</sub> )		0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5	
Reverse voltage at 10μA (V)(V <sub>R</sub> )		5	5	5	5	5	
Control current (mA)(I <sub>F</sub> )		5-50	5-50	5-50	10-50	5-50	
Output Characteristics							
Load voltage (V)(AC peak or DC)(V <sub>L</sub> )		80	80	100	100	100	
Continuous rated load current (mA)(I <sub>L</sub> )	SOP	120	120	350	1300	350	
	SMD/DIP	120	120	310	1600	310	
Peak current (mA)(I <sub>L-Peak</sub> )	SOP	250	250	900	2500	900	
	SMD/DIP	250	250	900	2500	900	
On-state resistance Max. (Ω)(R <sub>ON</sub> )		12	12	5	0.25	5	
Off-state leakage current (μA) (I <sub>LK</sub> )		1	1	1	1	1	
Turn-on (msec)(T <sub>ON</sub> )		1	1	1	5	1	
Turn-off (msec)(T <sub>OFF</sub> )		1	1	1	2	1	
Capacitance (pF)(C <sub>OUT</sub> )		25	25	---	---	---	
Current limit typ. (mA)		---	---	---	---	---	
Input / Output Characteristics							
I/O Capacitance (pF)(C <sub>I/O</sub> )		5	5	5	5	5	
I/O Isolation voltage (VAC)(V <sub>I/O</sub> )	SOP	2500	3000	2500	2500	3000	
	SMD/DIP	3750	5000	3750	3750	5000	
I/O Isolation resistance (GΩ)(R <sub>I/O</sub> )		5	5	5	5	5	
Temperature limits	Operating (T <sub>OP</sub> )	-40°C to +85°C (-40°F to +185°F)					
	Storage (T <sub>STG</sub> )	-40°C to +100°C (-40°F to +212°F)					





Part Number (4 PIN) (6 PIN) (8 PIN)	DIP	EPR	211A204000	211A204009	211A254000	211A254002	211A254009
	SMD		211A206000	211A206009	211A256000	211A256002	211A256009
			212A208000	212A208009	212A258000	212A258002	212A258009
	SOP		311A204X00	311A204X09	311A254X00	311A254X02	311A254X09
			311A206X00	311A206X09	311A256X00	311A256X02	311A256X09
			312A208X00	312A208X09	312A258X00	312A258X02	312A258X09
			411A204X00	411A204X09	411A254X00	411A254X02	411A254X09
			411A206X00	411A206X09	411A256X00	411A256X02	411A256X09
			412A208X00	412A208X09	412A258X00	412A258X02	412A258X09
Contact form	4PIN / 6PIN		1A	1A	1A	1A	1A
	8PIN		2A	2A	2A	2A	2A
Input Characteristics							
Forward voltage (V)(V <sub>F</sub> )			0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5
Reverse voltage at 10μA (V)(V <sub>R</sub> )			5	5	5	5	5
Control current (mA)(I <sub>F</sub> )			5-50	5-50	5-50	5-50	5-50
Output Characteristics							
Load voltage (V)(AC peak or DC)(V <sub>L</sub> )			200	200	250	250	250
Continuous rated load current (mA)(I <sub>L</sub> )	SOP		150	150	140	140	140
	SMD/DIP		200	200	180	200	180
Peak current (mA)(I <sub>L-Peak</sub> )	SOP		300	300	300	300	300
	SMD/DIP		400	400	350	350	350
On-state resistance Max. (Ω)(R <sub>ON</sub> )			10	10	10	8	10
Off-state leakage current (μA) (I <sub>LK</sub> )			1	1	1	1	1
Turn-on (msec)(T <sub>ON</sub> )			1	1	1	1	1
Turn-off (msec)(T <sub>OFF</sub> )			1	1	1	1	1
Capacitance (pF)(C <sub>OUT</sub> )			100	100	100	---	100
Current limit typ. (mA)			---	---	---	---	---
Input / Output Characteristics							
I/O Capacitance (pF)(C <sub>I/O</sub> )			5	5	5	5	5
I/O Isolation voltage (VAC)(V <sub>I/O</sub> )	SOP		2500	3000	2500	2500	3000
	SMD/DIP		3750	5000	3750	3750	5000
I/O Isolation resistance (GΩ)(R <sub>I/O</sub> )			5	5	5	5	5
Temperature limits	Operating (T <sub>OP</sub> )	-40°C to +85°C (-40°F to +185°F)					
	Storage (T <sub>STG</sub> )	-40°C to +100°C (-40°F to +212°F)					



Part Number (4 PIN) (6 PIN) (8 PIN)	DIP	EPR	211A354000	211A354001	211A354002	211A354009
	SMD		211A356000	211A356001	211A356002	211A356009
			212A358000	212A358001	212A358002	212A358009
SOP	311A354X00	311A354X01	311A354X02	311A354X09		
	311A356X00	311A356X01	311A356X02	311A356X09		
SOP	312A358X00	312A358X01	312A358X02	312A358X09		
	411A354X00	411A354X01	411A354X02	411A354X09		
Contact form	4PIN / 6PIN	1A	1A	1A	1A	
	8PIN	2A	2A	2A	2A	
Input Characteristics						
Forward voltage (V)(V <sub>F</sub> )		0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5	
Reverse voltage at 10μA (V)(V <sub>R</sub> )		5	5	5	5	
Control current (mA)(I <sub>F</sub> )		5-50	5-50	5-50	5-50	
Output Characteristics						
Load voltage (V)(AC peak or DC)(V <sub>L</sub> )		350	350	350	350	
Continuous rated load current (mA)(I <sub>L</sub> )	SOP	100	80	130	100	
	SMD/DIP	130	100	170	130	
Peak current (mA)(I <sub>L-Peak</sub> )	SOP	300	200	300	300	
	SMD/DIP	300	250	300	300	
On-state resistance Max. (Ω)(R <sub>ON</sub> )		30	50	16	30	
Off-state leakage current (μA) (I <sub>LK</sub> )		1	1	1	1	
Turn-on (msec)(T <sub>ON</sub> )		1	1.5	1	1	
Turn-off (msec)(T <sub>OFF</sub> )		1	1	1	1	
Capacitance (pF)(C <sub>OUT</sub> )		100	---	200	---	
Current limit typ. (mA)		---	---	---	---	
Input / Output Characteristics						
I/O Capacitance (pF)(C <sub>I/O</sub> )		5	5	5	5	
I/O Isolation voltage (VAC)(V <sub>I/O</sub> )	SOP	2500	2500	2500	3000	
	SMD/DIP	3750	3750	3750	5000	
I/O Isolation resistance (GΩ)(R <sub>I/O</sub> )		5	5	5	5	
Temperature limits	Operating (T <sub>OP</sub> )	-40°C to +85°C (-40°F to +185°F)				
	Storage (T <sub>STG</sub> )	-40°C to +100°C (-40°F to +212°F)				



Part Number (4 PIN) (6 PIN) (8 PIN)	DIP	EPR	211A404000	211A404002	211A404009	211A604000	211A604009
	SMD		211A406000	211A406002	211A406009	211A606000	211A606009
			212A408000	212A408002	212A408009	212A608000	212A608009
	SOP		311A404X00	311A404X02	311A404X09	311A604X00	311A604X09
			311A406X00	311A406X02	311A406X09	311A606X00	311A606X09
			312A408X00	312A408X02	312A408X09	312A608X00	312A608X09
			411A404X00	411A404X02	411A404X09	411A604X00	411A604X09
			411A406X00	411A406X02	411A406X09	411A606X00	411A606X09
			412A408X00	412A408X02	412A408X09	412A608X00	412A608X09
Contact form	4PIN / 6PIN		1A	1A	1A	1A	1A
	8PIN		2A	2A	2A	2A	2A
Input Characteristics							
Forward voltage (V)(V <sub>F</sub> )			0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5
Reverse voltage at 10μA (V)(V <sub>R</sub> )			5	5	5	5	5
Control current (mA)(I <sub>F</sub> )			5-50	5-50	5-50	5-50	5-50
Output Characteristics							
Load voltage (V)(AC peak or DC)(V <sub>L</sub> )			400	400	400	600	600
Continuous rated load current (mA)(I <sub>L</sub> )	SOP		100	120	100	50	50
	SMD/DIP		130	150	130	70	70
Peak current (mA)(I <sub>L-Peak</sub> )	SOP		250	300	250	100	100
	SMD/DIP		300	300	300	120	120
On-state resistance Max. (Ω)(R <sub>ON</sub> )			30	16	30	70	70
Off-state leakage current (μA) (I <sub>LK</sub> )			1	1	1	1	1
Turn-on (msec)(T <sub>ON</sub> )			1	1	1	1	1
Turn-off (msec)(T <sub>OFF</sub> )			1	1	1	1	1
Capacitance (pF)(C <sub>OUT</sub> )			70	---	70	100	100
Current limit typ. (mA)			---	---	---	---	---
Input / Output Characteristics							
I/O Capacitance (pF)(C <sub>I/O</sub> )			5	5	5	5	5
I/O Isolation voltage (VAC)(V <sub>I/O</sub> )	SOP		2500	2500	3000	2500	3000
	SMD/DIP		3750	3750	5000	3750	5000
I/O Isolation resistance (GΩ)(R <sub>I/O</sub> )			5	5	5	5	5
Temperature limits	Operating (T <sub>OP</sub> )	-40°C to +85°C (-40°F to +185°F)					
	Storage (T <sub>STG</sub> )	-40°C to +100°C (-40°F to +212°F)					



Part Number (4 PIN) (6 PIN) (8 PIN)	DIP	EPR	211B064000	211B064009	211B204000	211B204009
	SMD		211B066000	211B066009	211B206000	211B206009
			212B068000	212B068009	212B208000	212B208009
SOP	EPR	311B064X00	311B064X09	311B204X00	311B204X09	
		311B066X00	311B066X09	311B206X00	311B206X09	
		312B068X00	312B068X09	312B208X00	312B208X09	
SOP	EPR	411B064X00	411B064X09	411B204X00	411B204X09	
		411B066X00	411B066X09	411B206X00	411B206X09	
		412B068X00	412B068X09	412B208X00	412B208X09	
Contact form	4PIN / 6PIN	1B	1B	1B	1B	
	8PIN	2B	2B	2B	2B	
Input Characteristics						
Forward voltage (V)(V <sub>F</sub> )		0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5	
Reverse voltage at 10μA (V)(V <sub>R</sub> )		5	5	5	5	
Control current (mA)(I <sub>F</sub> )		5-50	5-50	5-50	5-50	
Output Characteristics						
Load voltage (V)(AC peak or DC)(V <sub>L</sub> )		60	60	200	200	
Continuous rated load current (mA)(I <sub>L</sub> )	SOP	500	500	80	80	
	SMD/DIP	550	550	100	100	
Peak current (mA)(I <sub>L-Peak</sub> )	SOP	1000	1000	200	200	
	SMD/DIP	1000	1000	250	250	
On-state resistance Max. (Ω)(R <sub>ON</sub> )		1.4	1.4	50	50	
Off-state leakage current (μA) (I <sub>LK</sub> )		10	10	10	10	
Turn-on (msec)(T <sub>ON</sub> )		1	1	1	1	
Turn-off (msec)(T <sub>OFF</sub> )		1	1	1	1	
Capacitance (pF)(C <sub>OUT</sub> )		---	---	200	200	
Current limit typ. (mA)		---	---	---	---	
Input / Output Characteristics						
I/O Capacitance (pF)(C <sub>I/O</sub> )		5	5	5	5	
I/O Isolation voltage (VAC)(V <sub>I/O</sub> )	SOP	2500	3000	2500	3000	
	SMD/DIP	3750	5000	3750	5000	
I/O Isolation resistance (GΩ)(R <sub>I/O</sub> )		5	5	5	5	
Temperature limits	Operating (T <sub>OP</sub> )	-40°C to +85°C (-40°F to +185°F)				
	Storage (T <sub>STG</sub> )	-40°C to +100°C (-40°F to +212°F)				



Part Number (4 PIN) (6 PIN) (8 PIN)	DIP	EPR	211B354000	211B354009	211B404000	211B404009
	SMD		211B356X00	211B356X09	211B406X00	211B406X09
			212B358X00	212B358X09	212B408X00	212B408X09
SOP	311B354000	311B354009	311B404000	311B404009		
	311B356X00	311B356X09	311B406X00	311B406X09		
SOP	312B358X00	312B358X09	312B408X00	312B408X09		
	411B354000	411B354009	411B404000	411B404009		
Contact form	4PIN / 6PIN	1B	1B	1B	1B	
	8PIN	2B	2B	2B	2B	
Input Characteristics						
Forward voltage (V)(V <sub>F</sub> )		0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5	
Reverse voltage at 10μA (V)(V <sub>R</sub> )		5	5	5	5	
Control current (mA)(I <sub>F</sub> )		5-50	5-50	5-50	5-50	
Output Characteristics						
Load voltage (V)(AC peak or DC)(V <sub>L</sub> )		350	350	400	400	
Continuous rated load current (mA)(I <sub>L</sub> )	SOP	80	80	80	80	
	SMD/DIP	100	100	100	100	
Peak current (mA)(I <sub>L-Peak</sub> )	SOP	200	200	200	200	
	SMD/DIP	250	250	250	250	
On-state resistance Max. (Ω)(R <sub>ON</sub> )		50	50	50	50	
Off-state leakage current (μA) (I <sub>LK</sub> )		10	10	10	10	
Turn-on (msec)(T <sub>ON</sub> )		1	1	1	1	
Turn-off (msec)(T <sub>OFF</sub> )		1	1	1	1	
Capacitance (pF)(C <sub>OUT</sub> )		200	200	200	200	
Current limit typ. (mA)		---	---	---	---	
Input / Output Characteristics						
I/O Capacitance (pF)(C <sub>I/O</sub> )		5	5	5	5	
I/O Isolation voltage (VAC)(V <sub>I/O</sub> )	SOP	2500	3000	2500	3000	
	SMD/DIP	3750	5000	3750	5000	
I/O Isolation resistance (GΩ)(R <sub>I/O</sub> )		5	5	5	5	
Temperature limits	Operating (T <sub>OP</sub> )	-40°C to +85°C (-40°F to +185°F)				
	Storage (T <sub>STG</sub> )	-40°C to +100°C (-40°F to +212°F)				



Part Number (4 PIN) (6 PIN) (8 PIN)	DIP	EPR	----- 211C068000		----- 211C068009		----- 211C208000		----- 211C208009	
	SMD		----- 311C068X00		----- 311C068X09		----- 311C208X00		----- 311C208X09	
	SOP		----- 411C068X00		----- 411C068X09		----- 411C208X00		----- 411C208X09	
Contact form	4PIN / 6PIN	---		---		---		---		
	8PIN	1A	1B	1A	1B	1A	1B	1A	1B	
Input Characteristics										
Forward voltage (V)(V <sub>F</sub> )		0.9-1.5		0.9-1.5		0.9-1.5		0.9-1.5		
Reverse voltage at 10μA (V)(V <sub>R</sub> )		5		5		5		5		
Control current (mA)(I <sub>F</sub> )		5-50		5-50		5-50		5-50		
Output Characteristics										
Load voltage (V)(AC peak or DC)(V <sub>L</sub> )		60	60	60	60	200	200	200	200	
Continuous rated load current (mA)(I <sub>L</sub> )	SOP	500	500	500	500	150	80	150	80	
	SMD/DIP	550	550	550	550	200	100	200	100	
Peak current (mA)(I <sub>L-Peak</sub> )	SOP	1000	1000	1000	1000	300	200	300	200	
	SMD/DIP	1000	1000	1000	1000	400	250	400	250	
On-state resistance Max. (Ω)(R <sub>ON</sub> )		1.4	1.4	1.4	1.4	10	50	10	50	
Off-state leakage current (μA) (I <sub>LK</sub> )		1	10	1	10	1	10	1	10	
Turn-on (msec)(T <sub>ON</sub> )		1	1	1	1	1	1	1	1	
Turn-off (msec)(T <sub>OFF</sub> )		1	1	1	1	1	1	1	1	
Capacitance (pF)(C <sub>OUT</sub> )		150	---	150	---	100	200	100	200	
Current limit typ. (mA)		---	---	---	---	---	---	---	---	
Input / Output Characteristics										
I/O Capacitance (pF)(C <sub>I/O</sub> )		5		5		5		5		
I/O Isolation voltage (VAC)(V <sub>I/O</sub> )	SOP	2500		3000		2500		3000		
	SMD/DIP	3750		5000		3750		5000		
I/O Isolation resistance (GΩ)(R <sub>I/O</sub> )		5		5		5		5		
Temperature limits	Operating (T <sub>OP</sub> )	-40°C to +85°C (-40°F to +185°F)								
	Storage (T <sub>STG</sub> )	-40°C to +100°C (-40°F to +212°F)								



Part Number (4 PIN) (6 PIN) (8 PIN)	DIP	EPR	----- 211C358000		----- 211C358009		----- 211C408000		----- 211C408009	
	SMD		----- 311C358X00		----- 311C358X09		----- 311C408X00		----- 311C408X09	
	SOP		----- 411C358X00		----- 411C358X09		----- 411C408X00		----- 411C408X09	
Contact form	4PIN / 6PIN	---		---		---		---		
	8PIN	1A	1B	1A	1B	1A	1B	1A	1B	
Input Characteristics										
Forward voltage (V)(V <sub>F</sub> )		0.9-1.5		0.9-1.5		0.9-1.5		0.9-1.5		
Reverse voltage at 10μA (V)(V <sub>R</sub> )		5		5		5		5		
Control current (mA)(I <sub>F</sub> )		5-50		5-50		5-50		5-50		
Output Characteristics										
Load voltage (V)(AC peak or DC)(V <sub>L</sub> )		350	350	350	350	400	400	400	400	
Continuous rated load current (mA)(I <sub>L</sub> )	SOP	100	80	100	80	100	80	100	80	
	SMD/DIP	130	100	130	100	130	100	130	100	
Peak current (mA)(I <sub>L-Peak</sub> )	SOP	300	200	300	200	250	250	250	250	
	SMD/DIP	300	250	300	250	300	250	300	250	
On-state resistance Max. (Ω)(R <sub>ON</sub> )		30	50	30	50	30	50	30	50	
Off-state leakage current (μA) (I <sub>LK</sub> )		1	10	1	10	1	10	1	10	
Turn-on (msec)(T <sub>ON</sub> )		1	1	1	1	1	1	1	1	
Turn-off (msec)(T <sub>OFF</sub> )		1	1	1	1	1	1	1	1	
Capacitance (pF)(C <sub>OUT</sub> )		---	200	---	200	70	150	70	150	
Current limit typ. (mA)		---	---	---	---	---	---	---	---	
Input / Output Characteristics										
I/O Capacitance (pF)(C <sub>I/O</sub> )		5		5		5		5		
I/O Isolation voltage (VAC)(V <sub>I/O</sub> )	SOP	2500		3000		2500		3000		
	SMD/DIP	3750		5000		3750		5000		
I/O Isolation resistance (GΩ)(R <sub>I/O</sub> )		5		5		5		5		
Temperature limits	Operating (T <sub>OP</sub> )	-40°C to +85°C (-40°F to +185°F)								
	Storage (T <sub>STG</sub> )	-40°C to +100°C (-40°F to +212°F)								



Part Number (4 PIN) (6 PIN) (8 PIN)	DIP	EPR	211A354000L	211A354001L	211A354002L	211A404000L	211A404002L						
	SMD		211A356000L	211A356001L	211A356002L	211A406000L	211A406002L						
			212A358000L	212A358001L	212A358002L	212A408000L	212A408002L						
SOP	EPR	311A354X00L	311A354X01L	311A354X02L	311A404X00L	311A404X02L							
		311A356X00L	311A356X01L	311A356X02L	311A406X00L	311A406X02L							
		312A358X00L	312A358X01L	312A358X02L	312A408X00L	312A408X02L							
411A354X00L	411A354X01L	411A354X02L	411A404X00L	411A404X02L	411A406X00L	411A406X02L	412A408X00L	412A408X02L					
									411A356X00L	411A356X01L	411A356X02L	411A406X00L	411A406X02L
									412A358X00L	412A358X01L	412A358X02L	412A408X00L	412A408X02L
Contact form	4PIN / 6PIN	1A	1A	1A	1A	1A							
	8PIN	2A	2A	2A	2A	2A							
Input Characteristics													
Forward voltage (V)(V <sub>F</sub> )	0.9-1.5		0.9-1.5	0.9-1.5	0.9-1.5	0.9-1.5							
Reverse voltage at 10μA (V)(V <sub>R</sub> )	5		5	5	5	5							
Control current (mA)(I <sub>F</sub> )	5-50		5-50	5-50	5-50	5-50							
Output Characteristics													
Load voltage (V)(AC peak or DC)(V <sub>L</sub> )	350		350	350	400	400							
Continuous rated load current (mA)(I <sub>L</sub> )	SOP	100	80	120	100	100							
	SMD/DIP	120	100	120	120	120							
Peak current (mA)(I <sub>L-Peak</sub> )	SOP	120	120	120	120	120							
	SMD/DIP	120	120	120	120	120							
On-state resistance Max. (Ω)(R <sub>ON</sub> )	35		55	22	40	22							
Off-state leakage current (μA) (I <sub>LK</sub> )	1		1	1	1	1							
Turn-on (msec)(T <sub>ON</sub> )	3		3	3	3	3							
Turn-off (msec)(T <sub>OFF</sub> )	1		1	1	1	1							
Capacitance (pF)(C <sub>OUT</sub> )	---		---	---	70	---							
Current limit typ. (mA)	180		180	180	180	180							
Input / Output Characteristics													
I/O Capacitance (pF)(C <sub>I/O</sub> )	5		5	5	5	5							
I/O Isolation voltage (VAC)(V <sub>I/O</sub> )	SOP	2500	2500	2500	2500	2500							
	SMD/DIP	3750	3750	3750	3750	3750							
I/O Isolation resistance (GΩ)(R <sub>I/O</sub> )	5		5	5	5	5							
Temperature limits	Operating (T <sub>OP</sub> )	-40°C to +85°C (-40°F to +185°F)											
	Storage (T <sub>STG</sub> )	-40°C to +100°C (-40°F to +212°F)											





Part Number (4 PIN) (6 PIN) (8 PIN)	DIP	EPR	----- ----- 211A038005	----- ----- 211A048005		
	SMD		----- ----- 311A038X05	----- ----- 311A048X05		
	SOP		----- ----- -----	----- ----- -----		
Contact form	4PIN / 6PIN		---	---		
	8PIN		1A	1A		
Input Characteristics						
Forward voltage (V)(V <sub>F</sub> )			2.0-3.0	2.0-3.0		
Reverse voltage at 10μA (V)(V <sub>R</sub> )			5	5		
Control current (mA)(I <sub>F</sub> )			10-50	10-50		
Output Characteristics						
Load voltage (V)(AC peak or DC)(V <sub>L</sub> )			30	40		
Continuous rated load current (mA)(I <sub>L</sub> )	SOP		---	---		
	SMD/DIP		6000	5500		
Peak current (mA)(I <sub>L-Peak</sub> )	SOP		---	---		
	SMD/DIP		12000	12000		
On-state resistance Max. (Ω)(R <sub>ON</sub> )			0.1	0.1		
Off-state leakage current (μA) (I <sub>LK</sub> )			10	10		
Turn-on (msec)(T <sub>ON</sub> )			10	10		
Turn-off (msec)(T <sub>OFF</sub> )			2	2		
Capacitance (pF)(C <sub>OUT</sub> )			---	---		
Current limit typ. (mA)			---	---		
Input / Output Characteristics						
I/O Capacitance (pF)(C <sub>I/O</sub> )			5	5		
I/O Isolation voltage (VAC)(V <sub>I/O</sub> )	SOP		---	---		
	SMD/DIP		3750	3750		
I/O Isolation resistance (GΩ)(R <sub>I/O</sub> )			5	5		
Temperature limits	Operating (T <sub>OP</sub> )	-40°C to +85°C (-40°F to +185°F)				
	Storage (T <sub>STG</sub> )	-40°C to +100°C (-40°F to +212°F)				