

PCB MOUNT ESR20/ESR21 SERIES

us E155181(R)

FEATURES

- PCB Mount; Single in Line Package.
- Optically Isolated.
- Input LED Indicator.
- High dv/dt and High Blocking Voltage.
- Low Input power Consumption, TTL and CMOS Compatible.
- Zero Voltage Turn-on, Zero Current Turn-off (minizes EMI/RFI)
- High Surge Rating Allows Lamp and Motor Load Switching
- Built-in Snubber Network



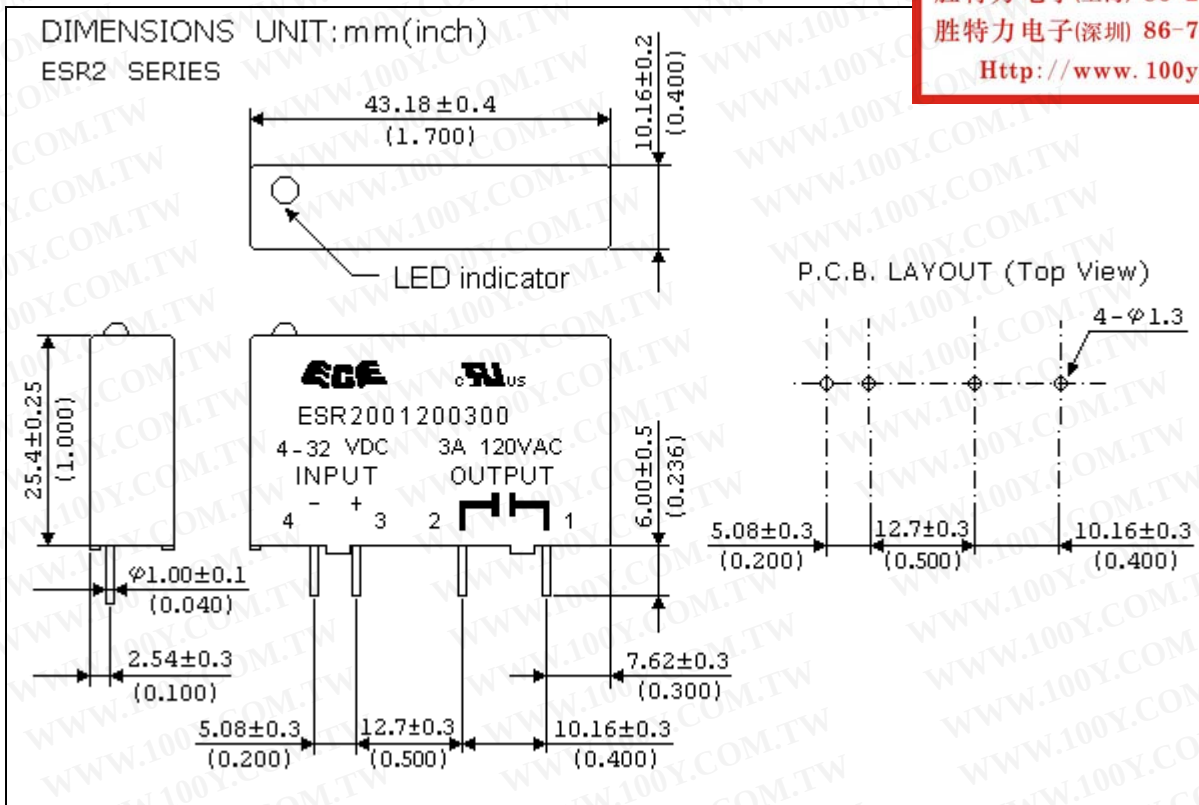
PART NUMBERING SYSTEM

ESR 20 0 240 03 00 Z

- +--- Z:RoHS Compliance
- +--- 00:Zero-on, Normal Open
- 01:Random-on, Normal Open
- +--- Load Current:
- 03:3Amps
- 07:7Amps(24VDC only)
- +--- Output Nominal Voltage:
- 024:24VDC; 060:60VDC
- 120:120VAC; 240:240VAC
- 380:380VAC
- +--- Output Nominal Voltage Type:
- 0:AC; 1:DC
- +--- Type Name:
- 20:PCB Type with LED Indicator
- 21:PCB Type without LED Indicator
- +--- Series Name: ESR

DIMENSIONS

勝特力材料 886-3-5753170
勝特力電子(上海) 86-21-54151736
勝特力電子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



SPECIFICATIONS

DESCRIPTION	TYPES	ESR200				ESR210			
		1200300	2400300	1200301	2400301	1200300	2400300	1200301	2400301
▶ INPUT CIRCUIT									
LED Indicate	YES					NO			
Control Voltage Range	4-32 VDC					3-32 VDC			
Control Current (mAdc)	15mA Max.					15mA Max.			
Min. Turn-off Voltage	1.5VDC					1VDC			
Min. Input Impedance	2.0KΩ					2.2KΩ			
▶ OUTPUT CIRCUIT									
Load type	AC					AC			
Max. Load Current	3A (rms)					3A (rms)			
Nominal load Voltage (VAC)	120	240	120	240	120	240	120	240	
Load Voltage Range (VAC)	24-140	24-280	24-140	24-280	24-140	24-280	24-140	24-280	
Non-Repetitive Max. Peak Voltage (VAC)	400	600	400	600	400	600	400	600	
Non-Repetitive Max. Peak Current	80A								
Max. Off-state Leakage Current	5mA								
Max. On-state Voltage Drop	1.5V								
Min. Load Current	50mA								
Max. Off-state Slew Rated (dv/dt)	100V/μs								

Operating Frequency Range	47Hz ~ 63Hz				Http://www.100y.com.tw
▶ GENERAL CHARACTERISTICS					
Zero-on or Random-on	Z	R	Z	R	
Max. Turn-on Time	8.3ms	100μs	8.3ms	100μs	
Max. Turn-off Time	8.3ms				
Insulation Resistance	DC 500V 10 ⁸ Ω Min. (Between Input & Output, Input / Output & Case)				
Dielectric Strength	2.5K VAC (Between Input & Output)				
Capacitance	10pF Max. (Between Input & Output)				
Operating Temperature	-20℃ ~ +85℃				
Storage Temperature	-40℃ ~ +100℃				

TYPES	ESR201	ESR211	ESR200	ESR210
DESCRIPTION	0600301	0600301	380030	380030
▶ INPUT CIRCUIT				
LED Indicate	YES	NO	YES	NO
Control Voltage Range	4-32 VDC	3-32 VDC	4-32 VDC	3-32 VDC
Control Current (mA _{dc})	15mA Max.	15mA Max.	16mA Max.	16mA Max.
Min. Turn-off Voltage	1.5VDC	1VDC	1.5VDC	1VDC
Min. Input Impedance	2.0KΩ	2.2KΩ		
▶ OUTPUT CIRCUIT				
Load type	DC		AC	
Max. Load Current	3A (rms)		3A (rms)	
Nominal load Voltage (VAC)	60		380	
Load Voltage Range (VAC)	3-60		48-415	
Non-Repetitive Max. Peak Voltage (VAC)	60		800	
Non-Repetitive Max. Peak Current	5A		120A	
Max. Off-state Leakage Current	1mA		5mA	
Max. On-state Voltage Drop	1.5V		1.6V	
Min. Load Current	10mA		50mA	
Max. Off-state Slew Rated (dv/dt)			500V/μs	
Operating Frequency Range			47Hz ~ 63Hz	
▶ GENERAL CHARACTERISTICS				
Zero-on or Random-on	R		Z	
Max. Turn-on Time	50μs		8.3ms	
Max. Turn-off Time	100μs		8.3ms	
Insulation Resistance	DC 500V 10 ⁸ Ω Min. (Between Input & Output, Input / Output & Case)			
Dielectric Strength	3.5K VAC (Between Input & Output)		4K VAC (Between Input & Output)	

Capacitance	10pF Max. (Between Input & Output)	10pF Max. (Between Input & Output)
Operating Temperature	-20℃ ~ +80℃	-20℃ ~ +80℃
Storage Temperature	-40℃ ~ +100℃	-40℃ ~ +100℃

TYPES	ESR201	ESR211
DESCRIPTION	0240701	0240701
▶ INPUT CIRCUIT		
LED Indicate	YES	NO
Control Voltage Range	4-32 VDC	3-32 VDC
Control Current (mA _{dc})	15mA Max.	15mA Max.
Min. Turn-off Voltage	1VDC	1VDC
▶ OUTPUT CIRCUIT		
Load Type	DC	
Max. Load Current	7A VDC	
Nominal Load Voltage	24 VDC	
Load Voltage Range	0-32 VDC	
Non Repetitive Overload Current	30A	
On State Voltage Drop (at I _L =7A)	0.42V	勝 特 力 材 料 886- 勝特力电子(上海) 86-2 勝特力电子(深圳) 86-7 Http://www.100y.com.tw
Static Output On-Resistance(at I _L =7A)	60mΩ	
Off State Leakage Current	<1mA	
Minimum Load Current	1mA	
Turn On Time (at nominal voltage)	50μs	
Turn Off Time (at nominal voltage)	600μs	
Operating Switching Frequency	10Hz	
Breakdown Voltage(<1mA)	51V	
Power Dissipation	1W	
▶ GENERAL CHARACTERISTICS		
Operating Temperature Range	-20℃ / +80℃	
Storage Temperature Range	-25℃ to +80℃	
Insulation Resistance	DC 500V 10 ⁸ Ω Min. (Between Input & Output, Input / Output & Case)	
Dielectric Strength	3750Vrms, 1minute (Between Input & Output)	
Capacitance	10pF Max. (Between Input & Output)	
Maximum Soldering Heat	260℃ (10sec)	
Weight	18g	

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