

Miniature PCB Relay EJ

- 1pole 3A/5A, 1 form A (NO) contact
- Sensitive coil 200mW
- Ambient temperature 85°C
- RoHS compliant (Directive 2002/95/EC)
- Coil UL class F (155) Insulation System



Typical applications
Home appliances.



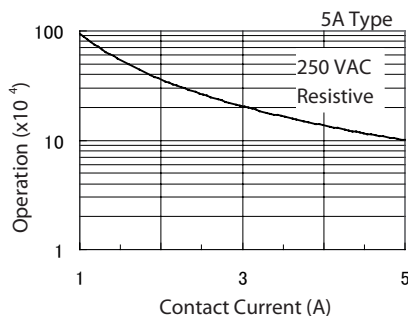
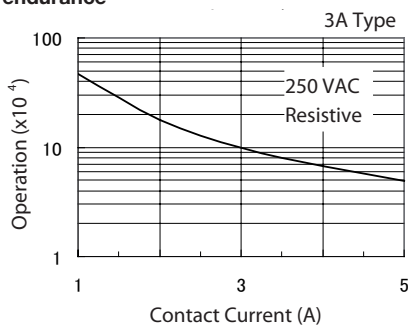
Approvals

VDE 40026866, UL E58304
Technical data of approved types on request.

Contact Data

Contact arrangement	1 form A (NO)
Rated voltage	250VAC
Max. switching voltage	30VDC, 277VAC
Rated current	3A/5A
Switching power	1,250VA, 150W
Contact material	AgNi
Min. recommended contact load	100mA, 5VDC
Initial contact resistance	100mΩ at 1A, 6VDC
Frequency of operation, with/without load	1800/18000h ⁻¹
Operate/release time max.	10ms
Electrical endurance	
EJ00 (3A): 3A, 250VAC, resistive:	100x10 ³ ops.
EJ05 (5A): 5A, 250VAC, resistive:	100x10 ³ ops

Electrical endurance



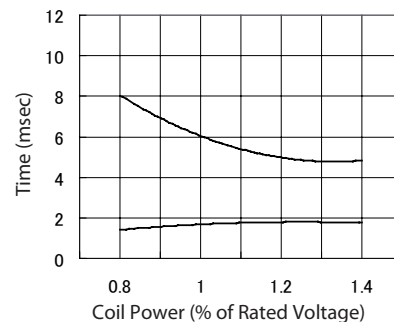
Contact Data (continued)

Contact ratings

Type	Contact	Load	Cycles
IEC 61810			
EJ	form A (NO)	5A, 250VAC, cosφ=1, 85°C	100x10 ³
EJ	form A (NO)	2A, 250VAC, cosφ=1, 85°C	100x10 ³
EJ	form A (NO)	3A, 250VAC, cosφ=1, 105°C	250x10 ³
UL 508			
EJ	form A (NO)	3A, 277VAC, cosφ=1, 85°C	50x10 ³

Mechanical endurance >5x10⁶ operations

Operate time



Coil Data

Coil voltage range	3 to 24VDC
Coil insulation system according UL	class 155 (F)

Coil versions, DC coil

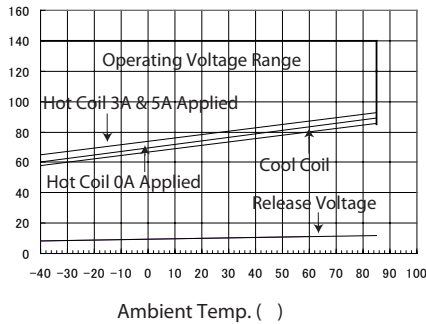
Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated coil power mW
003	3	2.25	0.3	45	200
005	5	3.75	0.5	125	200
006	6	4.50	0.6	180	200
009	9	6.75	0.9	405	200
012	12	9.00	1.2	720	200
018	18	13.50	1.8	1620	200
024	24	18.00	2.4	2890	200

All figures are given for coil without pre-energization, at ambient temperature +23°C.

Miniature PCB Relay EJ (Continued)

Contact data (continued)

Coil operative range



Insulation Data

Initial dielectric strength	
between open contacts	750V _{rms}
between contact and coil	4000V _{rms}
Initial surge withstand voltage	
between contact and coil	10000V
Initial insulation resistance	1000MΩ
Clearance/creepage	
between contact and coil	>= 6.3mm standard type
	>= 8.0mm reinforced type

Other Data

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.te.com/customer-support/rohssupportcenter

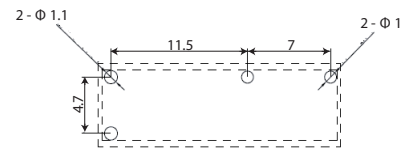
Ambient temperature	-40 to 85°C
Category of environmental protection	
IEC 61810	RTII - flux proof, RTIII - wash tight
Vibration resistance (functional)	10 to 50Hz, 1.5mm double amplitude
Shock resistance (functional)	
IEC 60068-2-27 (half sine)	98m/s ² , 11ms
Terminal type	PCB-THT
Weight	4g
Resistance to soldering heat THT	
IEC 60068-2-20	260°C/5s
Packaging/unit	box/1000 pcs.

Terminal assignment

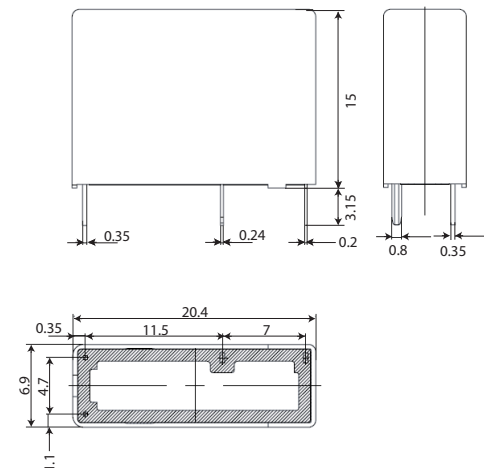
Bottom view on solder pins



PCB layout



Dimensions



Miniature PCB Relay EJ (Continued)

Product code structure		Typical product code											
		EJ	00	-1	A	4	-D	012	-F				
Type													
EJ		Miniature PCB Relay EJ											
Version													
00		3A		05		5A							
Poles													
1		1 pole											
Contact arrangement													
A		1 form A (NO) contact											
Contact material													
4		AgNi											
Coil version													
D		DC standard 200mW											
Coil													
		Coil code: please refer to coil versions table											
Sealing													
F		Flux proof				W						Wash tight*	
Electrical feature													
Blank		Standard				W						WG Product in accordance with IEC 60335-1 (domestic appliances)*	
R		Reinforced insulation type without WG				S						Reinforced insulation type with WG	

*) Wash tight version and WG version on request.

Product code	Version	Contact	Cont.material	Coil version	Coil voltage	Sealing	Part number
EJ00-1A4-D003-F	3A	1 form A (NO)	AgNi 90/10	200mW	3VDC	Flux proof	1649595-1
EJ00-1A4-D005-F					5VDC		1649595-2
EJ00-1A4-D006-F					6VDC		1649595-3
EJ00-1A4-D009-F					9VDC		1649595-4
EJ00-1A4-D012-F					12VDC		1649595-5
EJ00-1A4-D018-F					18VDC		1649595-6
EJ00-1A4-D024-F					24VDC		1649595-7
EJ05-1A4-D003-F	5A				3VDC		1649594-1
EJ05-1A4-D005-F					5VDC		1649594-2
EJ05-1A4-D006-F					6VDC		1649594-3
EJ05-1A4-D009-F					9VDC		1649594-4
EJ05-1A4-D012-F					12VDC		1649594-5
EJ05-1A4-D018-F					18VDC		1649594-6
EJ05-1A4-D024-F					24VDC		1649594-7