

# OZ/OZF series

## 16A Miniature Power PC Board Relay

## Appliances, HVAC, Office Machines.

♥ UL File No. E82292
● CSA File No. LR48471
▲ TUV File No. R85447

Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

#### Coil Data @ 20°C

OZ-L Sensitive								
Rated Coil	Nominal	urrent Resistance Voltage		Must Release				
Voltage	Current			Voltage				
(VDC)	(mA)			(VDC)				
5	106.4	47	3.75	0.25				
6	88.0	68	4.50	0.30				
9	58.0	155	6.75	0.45				
12	44.4	270	9.00	0.60				
24	21.8	1,100	18.00	1.20				
48	10.9	4,400	36.00	2.40				
OZ-D Standard								
Rated Coil	Nominal	Coil	Must Operate	Must Release				
Voltage	Current	Resistance	Voltage	Voltage				
(VDC)	(mA)	(obms) + 10%	(VDC)	(VDC)				

Rated Coil Voltage (VDC)	Nominal Current (mA)	Coil Resistance (ohms) ± 10%	Must Operate Voltage (VDC)	Must Release Voltage (VDC)		
5	138.9	36	3.50	0.25		
6	120.0	50	4.20	0.30		
9	78.3	115	6.30	0.45		
12	60.0	200	8.40	0.90		
24	29.3	820	16.80	1.20		
48	14.5	3,300	33.60	2.40		

## **Operate Data**

Must Operate Voltage:

**OZ-D:** 70% of nominal voltage or less.

**OZ-D:** 70% of nominal voltage of less. **OZ-L:** 75% of nominal voltage or less.

Must Release Voltage: 5% of nominal voltage or more.

Operate Time: OZ-D: 15 ms max.

**OZ-L:** 20 ms max.

Release Time: 8 ms max.

#### **Environmental Data**

Temperature Range: Operating, Class A (105°C) Insulation: OZ-D:  $-30^{\circ}$ C to  $+55^{\circ}$ C OZ-L:  $-30^{\circ}$ C to  $+70^{\circ}$ C. Operating, Class F (155°C) Insulation: OZ-D:  $-30^{\circ}$ C to  $+85^{\circ}$ C OZ-L:  $-30^{\circ}$ C to  $+85^{\circ}$ C OZ-L:  $-30^{\circ}$ C to  $+55^{\circ}$ C OZ-L:  $-30^{\circ}$ C to  $+55^{\circ}$ C OZ-L:  $-30^{\circ}$ C to  $+70^{\circ}$ C Vibration, Mechanical: 10 to 55 Hz., 1.5mm double amplitude Operational: 10 to 55 Hz., 1.5mm double amplitude. Shock, Mechanical: 1,000m/s<sup>2</sup> (100G approximately). Operational: 1000m/s<sup>2</sup> (10G approximately). Operating Humidity: 20 to 85% RH. (Non-condensing).

### **Mechanical Data**

Termination: Printed circuit terminals. Enclosure (94V-0 Flammability Ratings): OZ-S: Vented (Flux-tight) plastic cover. OZF-SS: Vented (Flux-tight) plastic cover. OZ-SH: Sealed plastic case. Weight: 0.46 oz (13g) approximately. OEG

### Features

- Meet UL 508, CSA and TUV requirements.
- 1 Form A and 1 Form C contact arrangements.
- Immersion cleanable, sealed version available.
- Meet 5,000V dielectric voltage between coil and contacts.
- Meet 10,000V surge voltage between coil and contacts (1.2 / 50μs).
- Quick Connect Terminal type available (OZF)
- UL TV-8 rating available (ÓZT).

## Contact Data @ 20°C

Arrangements: 1 Form A (SPST-NO) and 1 Form C (SPDT). Material: Ag Alloy (1 Form C) and AgSnO (1 Form A). Max. Switching Rate: 300 ops./min. (no load). 30 ops./min. (rated load). Expected Mechanical Life: 10 million operations (no load). Expected Electrical Life: 100,000 operations (rated load). Minimum Load: 100mA @ 5VDC. Initial Contact Resistance: 100 milliohms @ 1A, 6VDC.

Contact Ratings

#### Ratings:

**OZ/ÖZF:** 20A @ 120VAC resistive, 16A @ 240VAC resistive, 5A @ 120VAC inductive (cosø= 0.4), 5A @ 24VDC inductive (L/R= 7msec). 1/2 HP @ 120VAC, 70°C. 1 HP @ 240VAC. 20A @ 120VAC, general use. 16A @ 240VAC, general use, N.O. only, @ 105°C\*. 16A @ 240VAC, general use, carry only, N.C. only, @ 105°C\*.

\* Rating applicable only to models with Class F (155°C) insulation system.

**OZT:** 8A @ 240VAC resistive, TV-8 @ 120VAC tungsten, 25,000ops.

#### Max. Switched Voltage: AC: 240V.

DC: 110V. Max. Switched Current: 16A (OZ/OZF), 8A (OZT). Max. Switched Power: 3,850VA, 600W.

#### Initial Dielectric Strength

Between Open Contacts: 1,000VAC 50/60 Hz. (1 minute). Between Coil and Contacts: 5,000VAC 50/60 Hz. (1 minute). Surge Voltage Between Coil and Contacts: 10,000V (1.2 / 50µs).

#### **Initial Insulation Resistance**

Between Mutually Insulated Elements: 1,000M ohms min. @ 500VDC.

## Coil Data

Voltage: 5 to 48VDC. Nominal Power: 720 mW (OZ-D), 540mW (OZ-L). Coil Temperature Rise: 45°C max., at rated coil voltage. Max. Coil Power: 130% of nominal. Duty Cycle: Continuous.

Dimensions are in inches over (millimeters) unless otherwise specified

## Catalog 12092/2

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Electronics	Issued 3-	03 (PDF Rev. 11	-04)						OEG
Ordering Information			-		-			_	
Тур	ical Part Number 🕨 🛛 🕻	DZ -SH	-1	24	L	M	1	F	,294
1. Basic Series: OZ = 16A PC Board Terminals OZT = TV-8 Rating PC Board Termina	OZF = Quick Connect Termi Is	inals							
2. Enclosure: S = Vent (Flux-tight)* plastic cover ( SS = Vent (Flux-tight)* plastic cover.	only available with OZF) SH = Sealed, plas	stic case.							
<b>3. Termination:</b> 1 = 1 pole									
<b>4. Coil Voltage:</b> 05 = 5VDC 09 = 9VDC 06 = 6VDC 12 = 12VDC	24 = 24VDC 48 = 48VDC			-					
5. Coil Input: D = Standard (720mW)	L = Sensitive (540mW)								
6. Contact Arrangement: Blank = 1 Form C, SPDT	M = 1 Form A, SPST-NO					-			
7. Contact Material: Blank = AgCdO (1 Form C)	1 = AgSnO (1 Form A, only a	available with (	)ZLM	1 or DM1	)				
8. Mounting and Termination: Blank = PC Board Terminals	P = PC Board and Quick Cor	nnect Terminal	s (only a	vailable o	nly with (	DZF-S-1	LM1P).		
<b>9. Insulation System:</b> Blank = Class A (105°C) Insulation	F= Class F (155°C	C) Insulation							
<b>10. Suffix:</b> ,200 = Standard model for "SS" enclo ,294 = Standard model for "SH" enclo		Standard mod Standard mod					Other Suf	fix = Custom m	odel

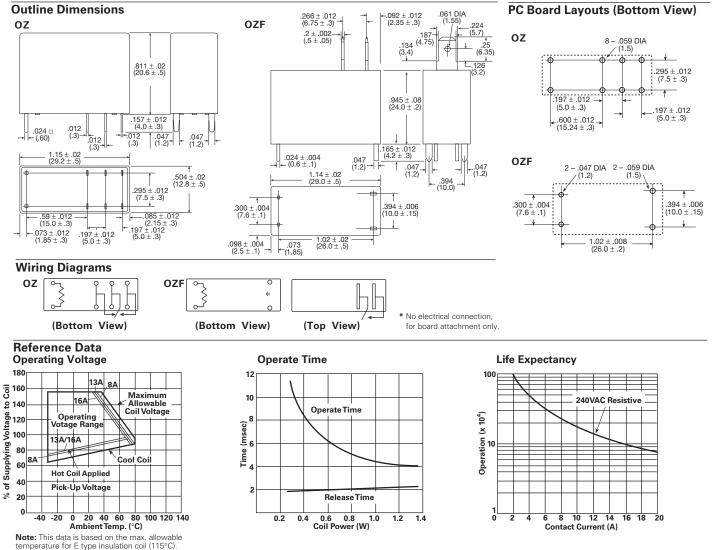
\* Not suitable for immersion cleaning processes.

Our authorized distributors are more likely to maintain the following items in stock for immediate delivery. OZ-SH-105D,294

OZ-SH-124D,294 OZ-SH-112LM1,294 OZ-SH-112D,294 OZ-SH-105LM1,294 OZ-SH-124LM1,294

OZ-SH-105L,294 OZ-SH-112L,294

OZ-SH-124L,294



Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

Specifications and availability subject to change.

www.tycoelectronics.com Technical support: 463 Free Datasheet http://www.datasheet4u.com/