TELEDYNE RELAYS
Everywhereyoulook™

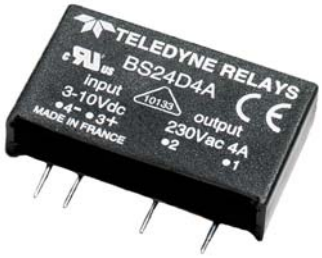
Series BS

4A to 250 Vac SIP Package
DC Control

Part Number	Description
BS24D4A	4A, 280 Vac
BS24D4F	25A, 280 Vac

Part Number Explanation

BS	24	D	4	A
Series	*Line Voltage[1]*	*Switch Type[2]*	*Output Current – Amps*	*Control Range[3]*



RoHS Option

NOTES
1) Line Voltage 24 = 280 Vac
2) Switch Type: D = Zero-cross turn-on
3) Control Range: A = 3.0-10 Vdc for BS24D4A; F = 8-30 Vdc

MECHANICAL SPECIFICATION

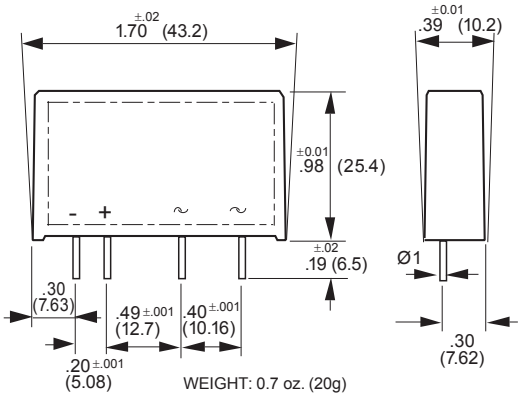


Figure 1 — BS Relays; Dimensions in inches [mm]

INPUT (CONTROL) SPECIFICATION

	Min	Max	Units
Control Range			
BS24D4A	3	10	Vdc
BS24D4F	8	30	Vdc
Input Current Range	5	30	mAdc
Must Turn-Off Voltage		0.8	Vdc
Input Resistance (Typical)			
BS24D4A		330	Ohms
BS24D4A		1200	Ohms

FEATURES/BENEFITS

- Industry standard package
- High in-rush capabilities
- Low input current draw
- High dv/dt capability

DESCRIPTION

The BS 4-amp solid-state single inline (SIP) four-pin relays are designed for mounting on a printed circuit board. The relays offer built-in voltage protection and can withstand very high current overloads. The Series BS4 relays have a low zero-cross window. The compact size and triac output make the BS relay the perfect retrofit for electromechanical relays.

APPLICATIONS

- Interface applications
- Vending machines
- Light/lamp control
- HVAC controls

APPROVALS

All models are UL recognized. VDE approved.
UL File Number: E128555.

TYPICAL APPLICATION

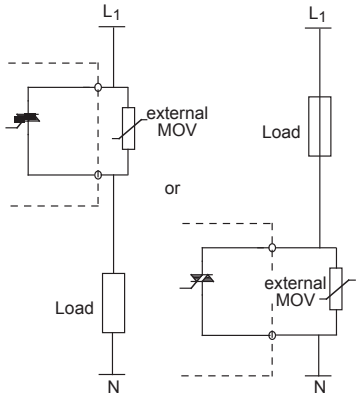


Figure 3 – BS relays

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OUTPUT (LOAD) SPECIFICATION

	Min	Max	Units
Operating Range	15	280	Vrms
Peak Voltage		600	Vpeak
Load Current Range	.05	4	Arms
Maximum Surge Current Rating (Non-Repetitive) (See Figure 5)		100	Apeak
On-State Voltage Drop		1.6	V
Off-State Leakage Current (60 Hz)		0.3	mArms
Turn-On Time (60Hz)		8.3	ms
Turn-Off Time (60Hz)		8.3	ms
Operating Frequency Range	10	63	Hz
Off-State dv/dt	200		V/µs
Zero-Cross Window	±50		V
I²T for matching fuse (<8.3ms)	50		A²s

ENVIRONMENTAL SPECIFICATION

	Min	Max	Units
Operating Temperature	-40	80	ºC
Storage Temperature	-40	150	ºC
Input-Ouput Isolation	4000		Vrms
Input-Output Capacitance		8	pF

BLOCK DIAGRAM

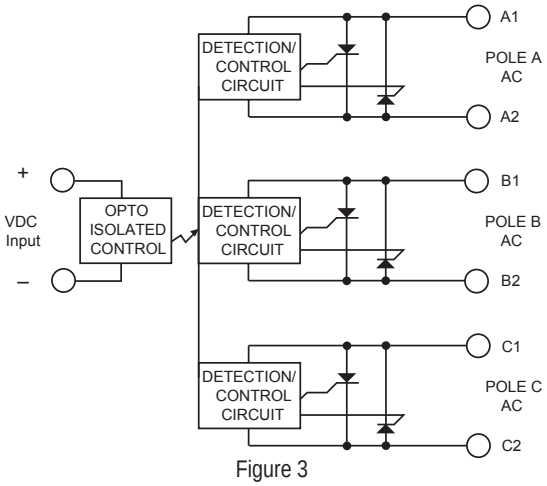


Figure 3

NOTES

1. Electrical specifications at 25 ºC unless otherwise specified.
2. See figure 6 for output protection recommendation
3. For additional/custom options, contact factory

BLOCK DIAGRAM

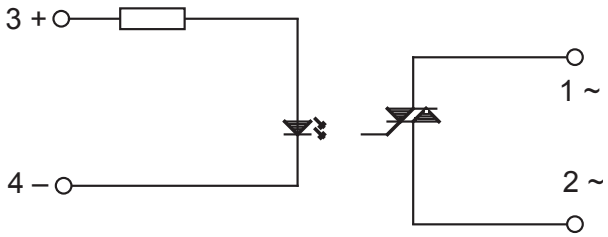


Figure 2 – BS relays

LOAD CURRENT DERATING CURVE

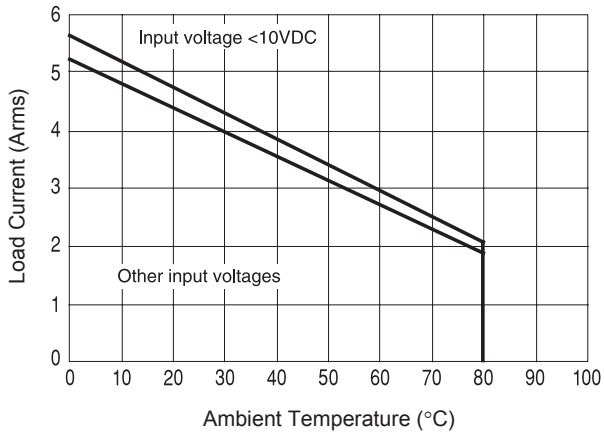


Figure 4 – Thermal curves

SURGE CURRENT RATING

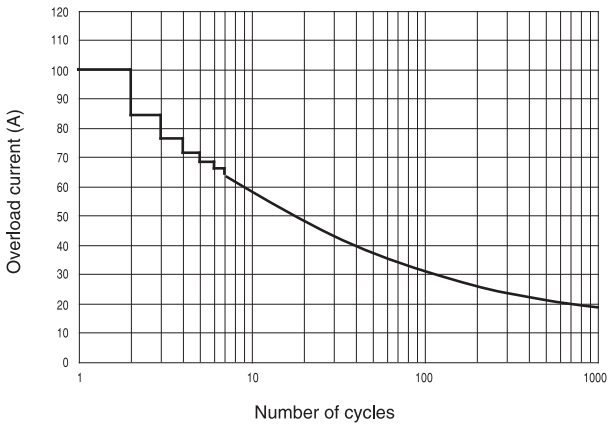


Figure 5 – Non-repetitive surge current

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE
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