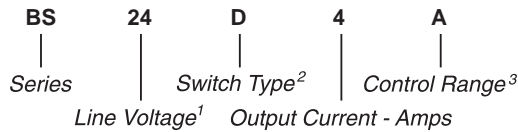


Part Number	Description
BS24D4A	4A, 280 Vac
BS24D4F	4A, 280 Vac
BS60D4A	4A, 600 Vac

Part Number Explanation



NOTES

- 1) Line Voltage: 24 = 280 Vac; 60 = 600 Vac
- 2) Switch Type: D = Zero-cross turn-on
- 3) Control Range: A = 3.0–10 Vdc for BS24D4A, 3.7–10 Vdc for BS60D4A; F = 8–30 Vdc

MECHANICAL SPECIFICATION

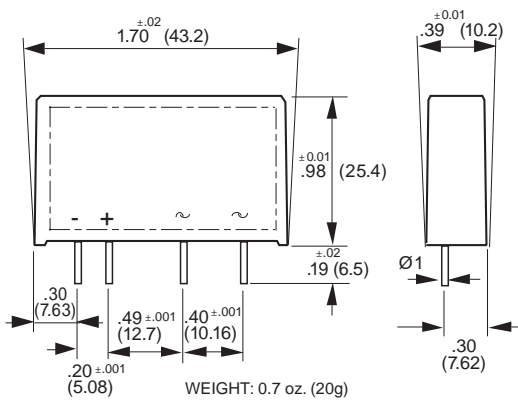
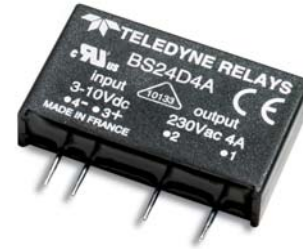


Figure 1 – BS relays; dimensions in inches (mm)

INPUT (CONTROL) SPECIFICATION

	Min	Max	Units
Control Range			
BS24D4A	3	10	Vdc
BS24D4F	8	30	Vdc
BS60D4A	3.7	10	Vdc
Input Current Range			
	5	30	mAdc
Must Turn-Off Voltage			
BS24D4A		0.8	Vdc
BS24D4F		0.8	Vdc
BS60D4A		1.5	Vdc
Input Resistance (Typical)			
BS24D4A		330	Ohms
BS24D4F		1200	Ohms
BS60D4A		270	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 BS relays can withstand very high current overloads. The compact size and triac output make the BS relay an excellent choice for switching medium-power resistive loads.

APPLICATIONS

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

APPROVALS

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

BLOCK DIAGRAM

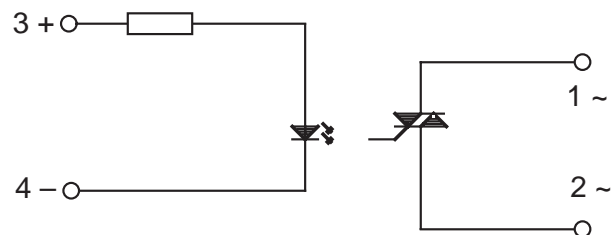


Figure 2 – BS relays

OUTPUT (LOAD) SPECIFICATION

	Min	Max	Unit
Operating Range			
BS24	15	280	Vrms
BS60	24	600	Vrms
Peak Voltage			
BS24		600	Vrms
BS60		1200	Vrms
Load Current Range			
BS24	.05	4	Arms
BS60	.08	4	Arms

Maximum Surge Current Rating (Non-Repetitive)

(See Figure 5)

On-State Voltage Drop	1.6	V	
Off-State Leakage Current (60Hz)	0.3	mArms	
Turn-On Time (60Hz)	8.3	ms	
Turn-Off Time (60Hz)	8.3	ms	
Operating Frequency	10	63	Hz
Off-State dv/dt	200	V/μs	

Zero-Cross Window

BS24	±50	V
BS60	±100	V

I²t for match fusing (<8.3ms)

BS24	50	A ² s
BS60	72	A ² s

ENVIRONMENTAL SPECIFICATION

	Min	Max	Unit
Operating Temperature	-40	80	°C
Storage Temperature	-40	150	°C
Input-Output Isolation	4000		Vrms
Input-Output Capacitance		8	pF

NOTES:

1. Electrical specifications at 25°C unless otherwise specified.
2. For 800Hz applications, contact factory.
3. For additional/custom options, contact factory.

TYPICAL APPLICATION

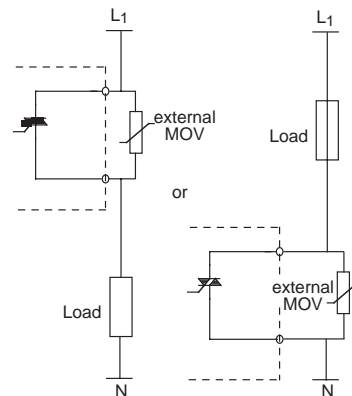


Figure 3 – BS relays

LOAD CURRENT DERATING CURVE

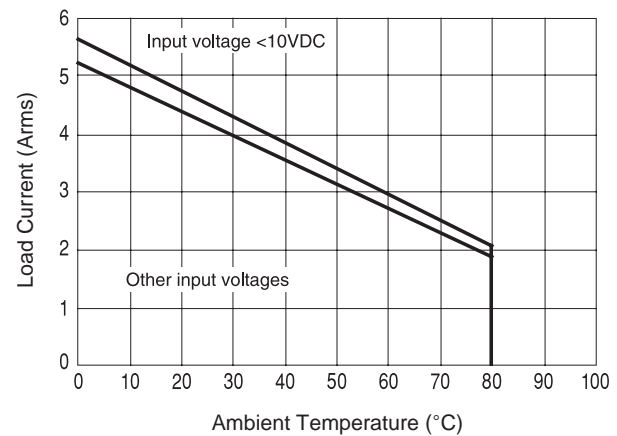


Figure 4 – Thermal curves

SURGE CURRENT RATING

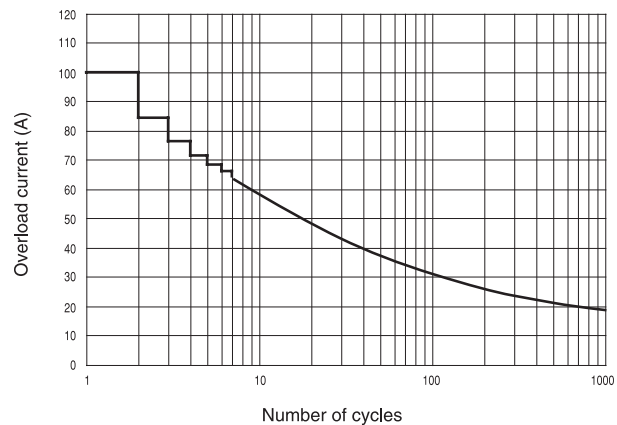


Figure 5 – Non-repetitive surge current