

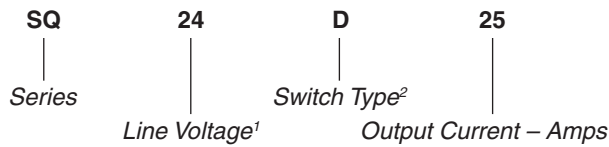
**FEATURES/BENEFITS**

- Four independently controlled solid-state relays in an industry standard package.
- Tight zero-cross window for low EMI
- Constant current input for low current draw
- Faston terminals
- High-power switching
- Optical isolation ensures complete protection of the control circuit from load transients
- Heating & motor control, industrial & process controls, on/off control of AC equipment
- UL recognized (UL File Number: E128555)



Part Number	Description
SQ24D25	25A, 240 Vac Solid-State Relay
SQ24R25	25A, 240 Vac Solid-State Relay

**Part Number Explanation**



**NOTES**

- 1) Line Voltage (nominal): 24 = 240 Vac
- 2) Switch Type: D = Zero-cross turn-on; R = Random turn-on
- 3) Control LED model available. Contact factory.

**ELECTRICAL SPECIFICATIONS**

(+25°C ambient temperature unless otherwise specified)

**INPUT (CONTROL) SPECIFICATIONS**

	Min	Max	Units
Control Range			
SQ24D25	3	32	Vdc
SQ24R25	4	40	Vdc
Input Current Range	See Figure 2		
Typical Turn-On Voltage	4.3		Vdc
Must Turn-Off Voltage		1	Vdc
Reverse Voltage		32	Vdc

**CONTROL CHARACTERISTIC**

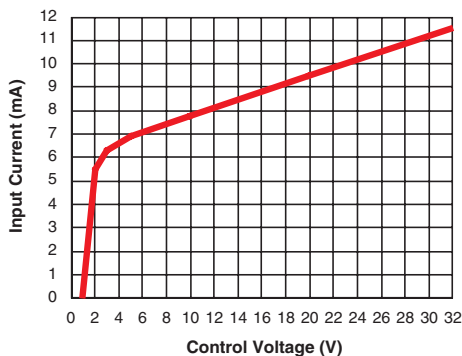


Figure 2

**MECHANICAL SPECIFICATION**

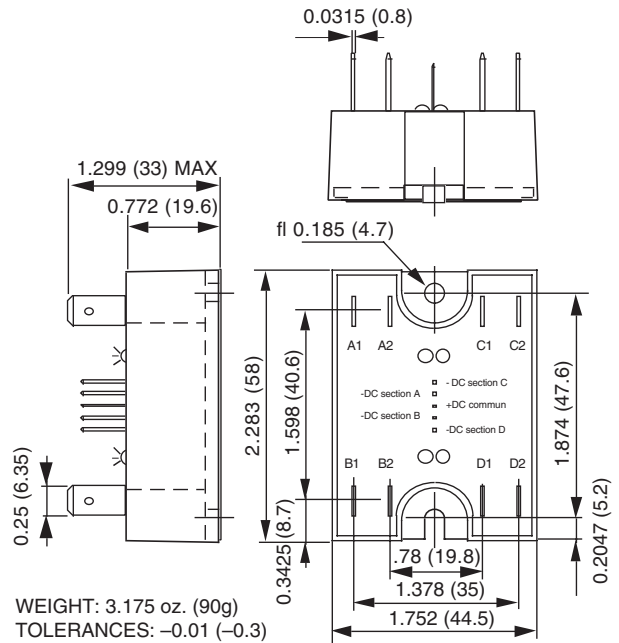


Figure 1

**TYPICAL APPLICATION**

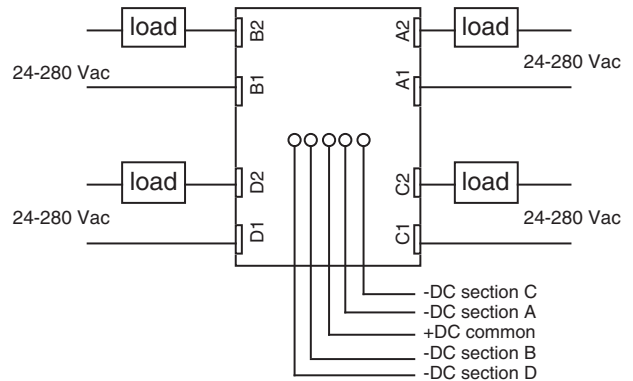


Figure 3

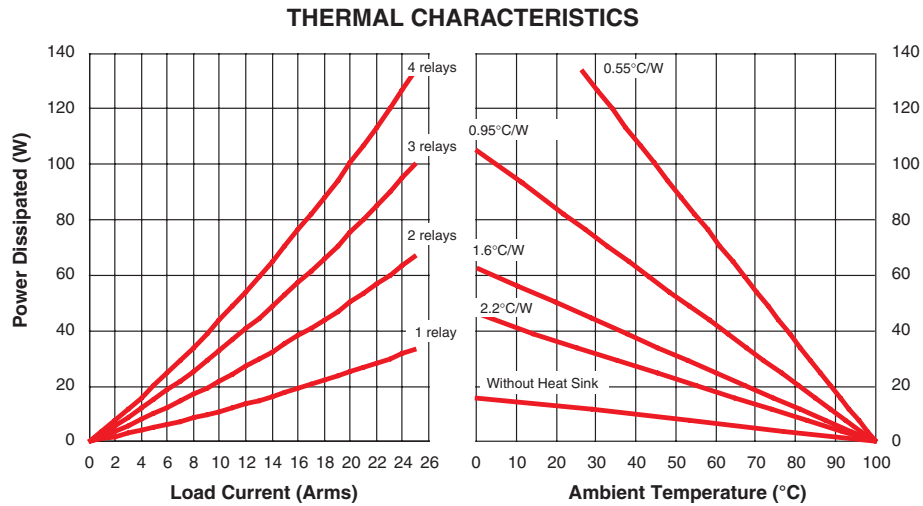


Figure 4

**ELECTRICAL SPECIFICATIONS**

(+25°C ambient temperature unless otherwise specified)

**OUTPUT (LOAD) SPECIFICATIONS**

	Min	Max	Units
Operating Range	12	280	Vrms
Peak Voltage		600	Vpeak
Load Current Range	.005	25	Arms
(See Figure 4)			
Maximum Surge Current Rating (Non-repetitive, see Figure 5)		240	A
On-State Voltage Drop		1.2	V
Zero-Cross Window		±25	V
Off-State Leakage Current (60Hz)		0.5	mA
Turn-On Time			
SQ24D25		8.3	ms
SQ24R25		0.1	ms
Turn-Off Time		8.3	µs
Off-State dv/dt		500	V/µs
Operating Frequency Range	47	440	Hz
I <sup>2</sup> t for Match Fusing (<8.3ms)		288	A <sup>2</sup> s

**SURGE CURRENT**

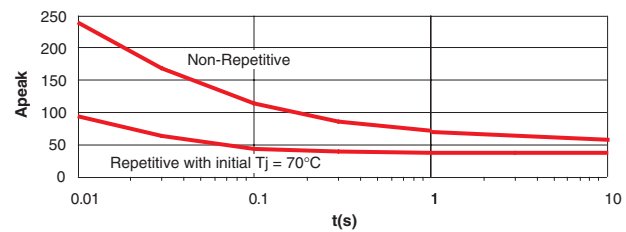


Figure 5

**NOTES**

1. Electrical specifications at 25°C unless otherwise noted.
2. Control LED models available. Contact factory.
3. For 800Hz applications, contact factory.
4. For additional/custom options, contact factory.

**OPTIONAL ADD-ONS**

- Please order add-ons separately:
- -12 — Thermal pad installed

**GENERAL SPECIFICATIONS**

(+25°C ambient temperature unless otherwise specified)

**ENVIRONMENTAL SPECIFICATIONS**

	Min	Max	Units
Operating Temperature	-40	+100	°C
Storage Temperature	-40	+100	°C
Input-Output Isolation	4000		Vrms
Output-Case Isolation	2500		Vrms
Rated Impulse Voltage	4000		V