

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

SQ	24	D	25
Series	Line Voltage ¹	Switch Type ²	Output Current – Amps

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

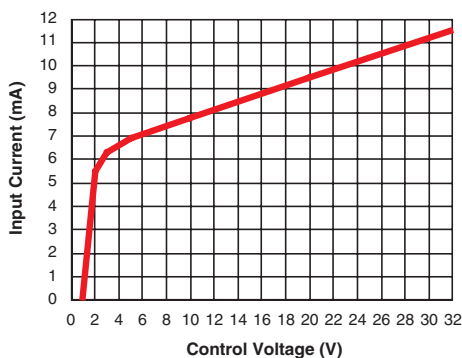


Figure 2

MECHANICAL SPECIFICATION

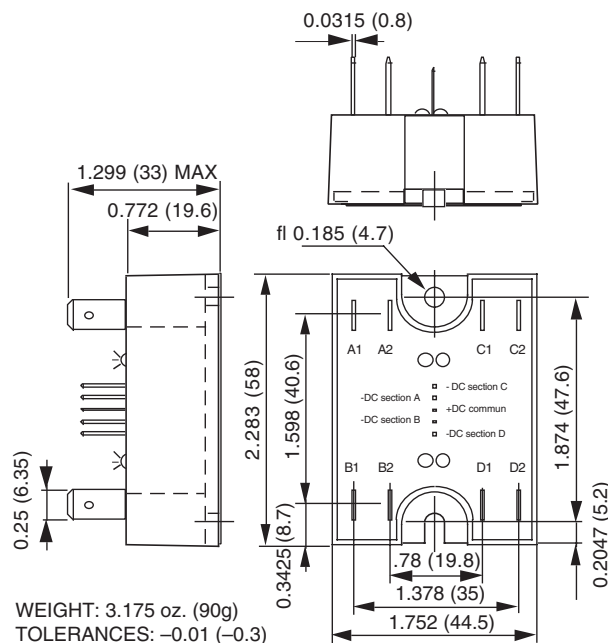


Figure 1

TYPICAL APPLICATION

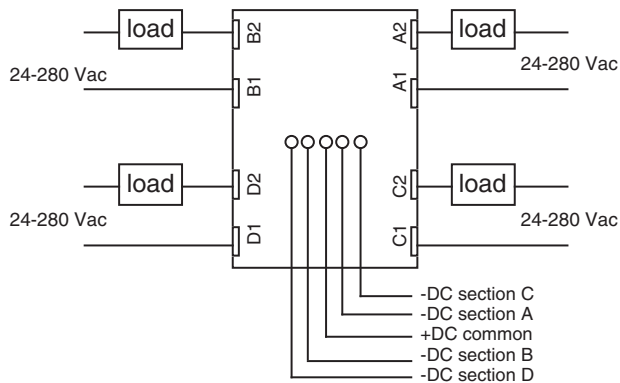


Figure 3

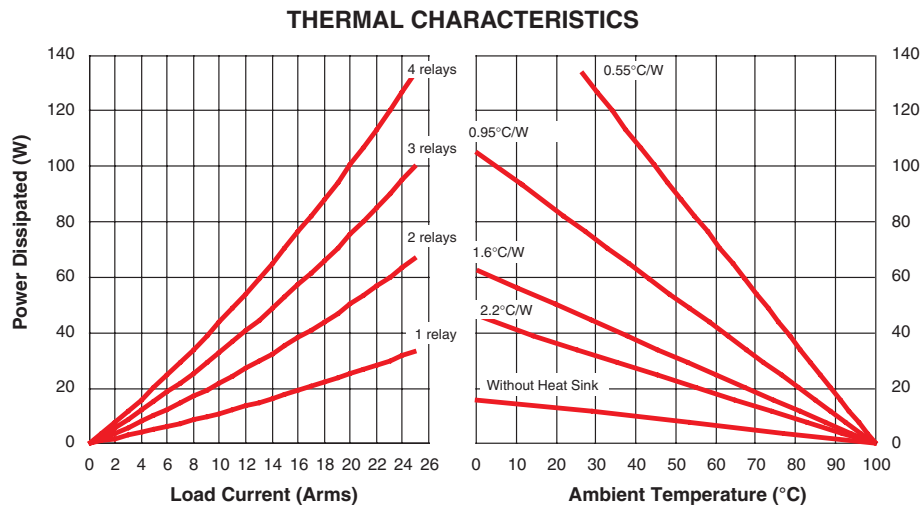


Figure 4

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 ² t for Match Fusing (<8.3ms)		288	A ² s

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

SURGE CURRENT

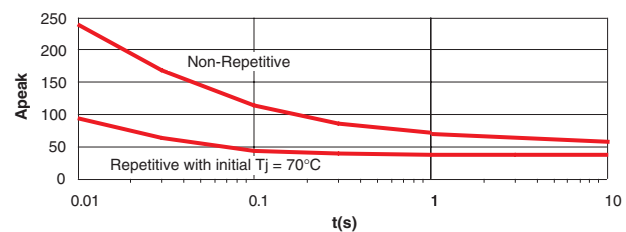


Figure 5

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Teledyne Relays:](#)

[SQ24D25-12](#)