

FEATURES/BENEFITS

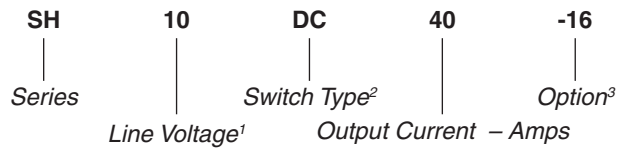
- Latest generation MOSFET technology
- Ultra low on-state resistance
- Low output leakage current
- Built-in overvoltage protection
- Reverse protected triggered control input to avoid linear control risks
- No radiated or conducted disturbances
- IP20 touch-proof flaps



IP20 touch-proof flaps

Part Number	Description
SH10DC40	40A, 100 Vdc Solid-State Relay
SH10DC40-16	40A, 60 Vdc Solid-State Relay

Part Number Explanation



NOTES

- 1) Line Voltage (peak): 10 = 100 Vdc
- 2) Switch Type: DC = DC
- 3) Option: Internal Protection

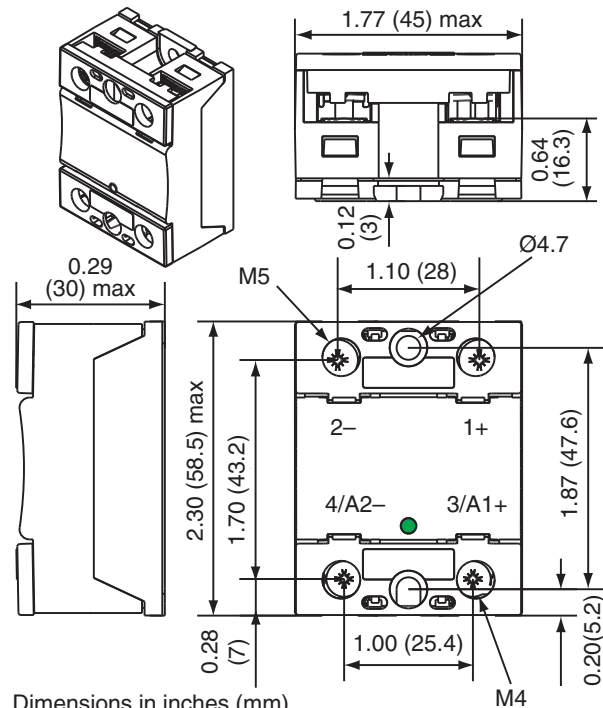
ELECTRICAL SPECIFICATIONS

(+25°C ambient temperature unless otherwise specified)

INPUT (CONTROL) SPECIFICATIONS

	Min	Max	Units
Control Range	3.5	32	Vdc
Must Turn-Off Voltage	1		Vdc
Reverse Voltage		32	Vdc

MECHANICAL SPECIFICATION



Dimensions in inches (mm)
Weight: 2.82 oz. (80g)

Figure 1

CONTROL CHARACTERISTIC

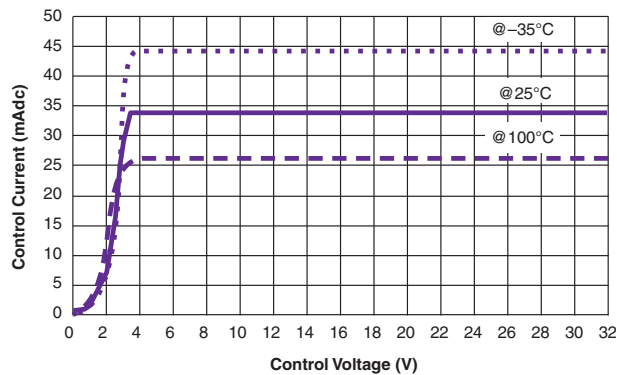


Figure 2

BLOCK DIAGRAM

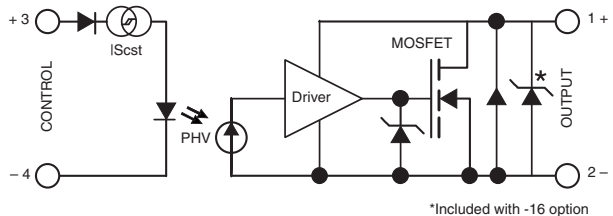


Figure 3

ELECTRICAL SPECIFICATIONS

(+25°C ambient temperature unless otherwise specified)

OUTPUT (LOAD) SPECIFICATIONS

	Min	Max	Units
Operating Range			
SH10DC40	5	100	Vdc
SH10DC40-16	5	60	Vdc
Peak Voltage			
		100	Vpeak
Overvoltage Protection			
Transient Voltage Suppressor			
SH10DC40-16		56V (1500W/1ms)	
Reverse Voltage Drop			
		1.3	V
Nominal Currents (Resistive)			
		40	A
Non-Repetitive Peak Overload Current			
		320	A
Leakage Current			
		3	mA
On-State Resistance			
		30	mΩ
Output Capacitance (Typical)			
	0.7		nF
Junction-Case Thermal Resistance			
	0.9		°C/W
Built-In Heat Sink Thermal Resistance (Vertically Mounted)			
	10		°C/W
Heat Sink Thermal Time Constant			
	10		min
Control Inputs/Power Outputs			
Insulation Voltage			
		2.5	kV
Turn-On Time			
		20	μs
Turn-On Delay			
		20	μs
Turn-Off Time			
		20	μs
Turn-Off Delay			
		20	μs
On-Off Frequency			
		1000*	Hz

HIGH SIDE WIRING DIAGRAM
(Load Connected to “-”)

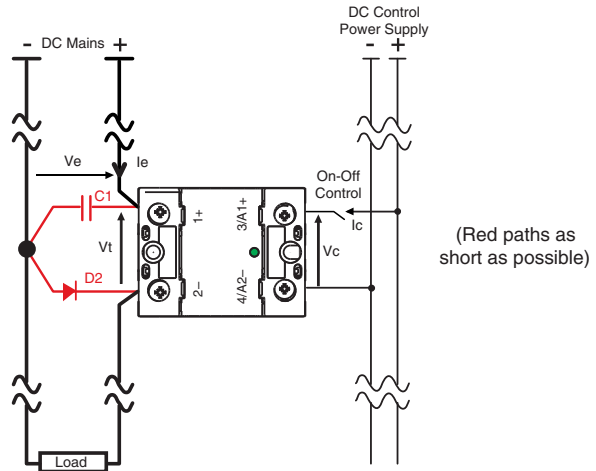


Figure 4

LOW SIDE WIRING DIAGRAM
(Load Connected to “+”)

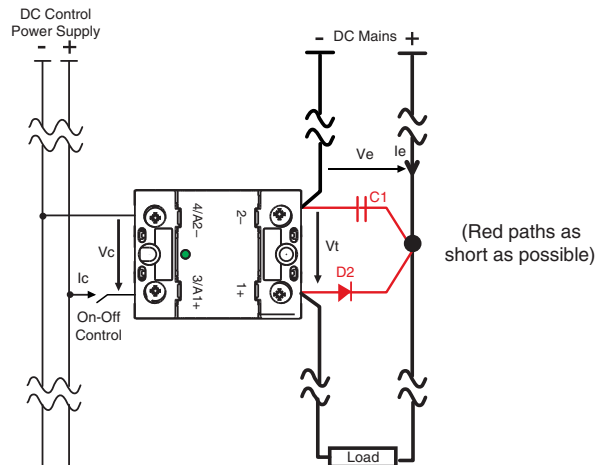


Figure 5

TIME DIAGRAMS

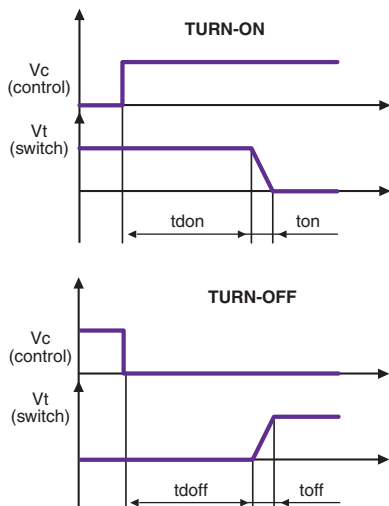


Figure 6

ON RESISTANCE VS. TEMPERATURE

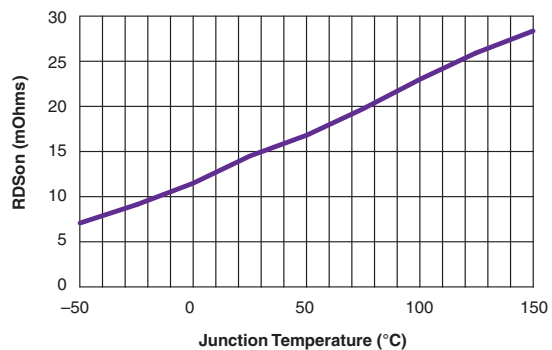


Figure 7

POWER DISSIPATION AND LOAD CURRENT LIMIT VS. TEMPERATURE

Please refer to the installation notice for precautions about mounting the device on a heat sink.

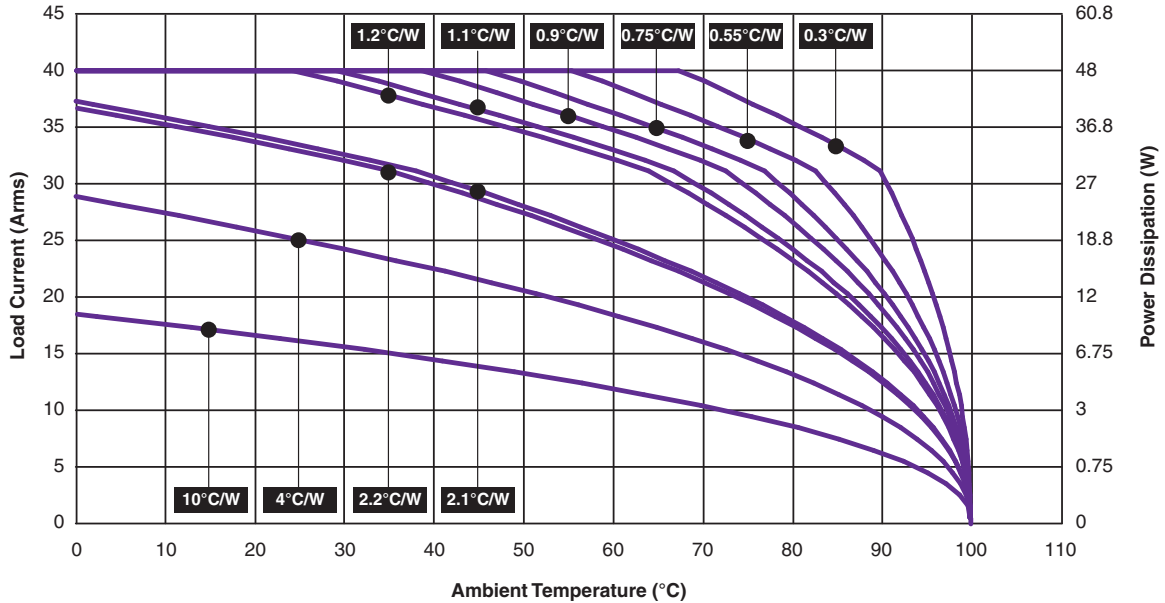


Figure 8

GENERAL SPECIFICATIONS

(+25°C ambient temperature unless otherwise specified)

ENVIRONMENTAL SPECIFICATIONS

	Min	Max	Units
Operating Temperature	-25	+90	°C
Storage Temperature	-40	+100	°C
Input-Output Isolation		2.5	kV
Insulation Resistance	1		GΩ
Insulation Capacitance	8		pF
Junction Temperature		175	°C
Case Temperature		100	°C

CONNECTIONS

	Power	Control
Screwdriver	POZIDRIV2	
Tightening Torque	2 N.m	1.2 N.m
Insulated crimp terminals (Round Tabs, Eyelet Type)	M5	M4

MISCELLANEOUS

Display	Green LED (ON)
Housing	UL94V0
Mounting	2 screws (M4x12mm)
Noise Level	No audible noise

SURGE CURRENT

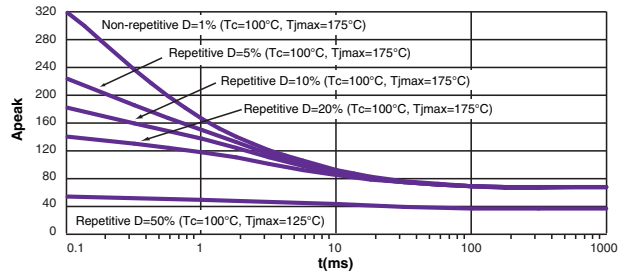


Figure 9

GENERAL

Standards	IEC60947-1
Protection Level	IP20
Protection Against Direct Touch	Yes
CE Marking	Yes

E.M.C. EMISSION

Radiated & Conducted Disturbances	Pending
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ACCESSORIES

Faston: Contact Factory



NOTES

1. For additional/custom options, contact factory.