

Product Description

- ◆ MOSFET or IGBT Output
- ◆ Low Impedance
- ◆ Control Voltage: 4-32VDC
- ◆ Load Current: 7~100A
- ◆ Dielectric Strength: 2500Vrms
- ◆ Internal Over-voltage Protection
- ◆ LED Indicator
- ◆ RoHS Compliant



Product Selection

KSJ	50	D	40	-L	(XXX)	+KPC-0A
KSJ Series	Load Voltage 30: 0~24VDC 50: 0~36VDC 60: 0~48VDC 100: 0~75VDC 200: 0~120VDC 400: 3~300VDC 600: 3~500VDC 1200: 3~700VDC	Control Mode D: DC Control	Load Current 7: 7Amp 10: 10Amp 20: 20Amp 25: 25Amp 40: 40Amp 50: 50Amp 80: 80Amp 100: 100Amp	L: LED	Customized Code	Protective Cover (Optional)

Available Part Numbers

Load Voltage	7A	10A	20A	25A	40A	50A	80A	100A
30VDC						KSJ30D50-L		KSJ30D100-L
50VDC					KSJ50D40-L		KSJ50D80-L	
60VDC	KSJ60D7-L					KSJ60D50-L		
100VDC			KSJ100D20-L		KSJ100D40-L		KSJ100D80-L	
200VDC		KSJ200D10-L	KSJ200D20-L		KSJ200D40-L			
400VDC				KSJ400D25-L				
600VDC				KSJ600D25-L		KSJ600D50-L		
1200VDC				KSJ1200D25-L		KSJ1200D50-L		

Technical Specifications

Input Specifications (Ta=25°C)	
Control Voltage Range	4-32VDC
Must Turn-on Voltage	4VDC
Must Turn-off Voltage	1VDC
Maximum Input Current	25mA (@32VDC)
Maximum Reverse Voltage	32VDC

Output Specifications (Ta=25°C)												
Ordering Informationc	KSJ30D...-L		KSJ50D...-L		KSJ60D...-L		KSJ100D...-L			KSJ200D...-L		
	50	100	40	80	7	50	20	40	80	10	20	40
Transistor Voltage (VDC)	55		75		100		150			250		
Load Voltage Range (VDC)	0~24		0~36		0~48		0~75			0~120		
TVS Breakdown Voltage Scope (V)	371-41		53.2-58.8		64.6-71.4		105-116			190-210		
Maximum Load Current (A)	50	100	40	80	7	50	20	40	80	10	20	40
Maximum SurgeCurrent (Apk,@10ms)	150	250	120	200	30	150	60	120	200	30	60	120
Maximum On-State Resistance (mΩ)	4.2	2.1	12	6	14	7	13	13	6.5	60	30	30
Maximum On-State Voltage Drop@Rated Current (V)							1.75					
Maximum Off-State Leakage Current@Rated Load Voltage (mA)							0.1					
Minimum Load Current (mA)							2					
Maximum Turn-on Time (ms)							0.3					
Maximum Turn-off Time (ms)							0.3					

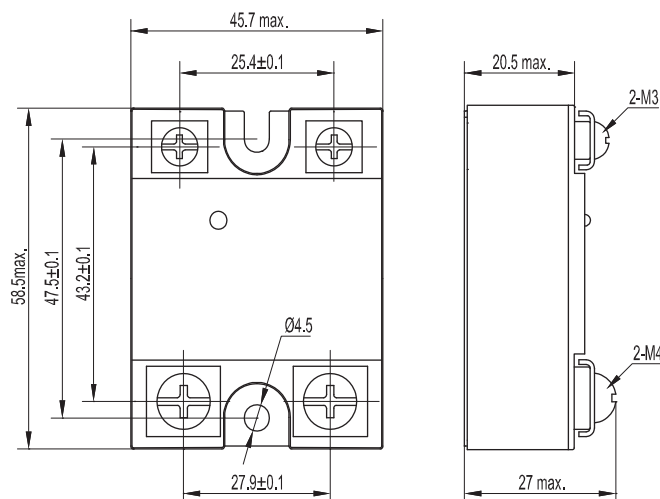
Output Specifications (Ta=25°C)						
Ordering Information	KSJ400D25-L		KSJ600D...-L		KSJ1200D...-L	
	25	50	25	50	25	50
Transistor Voltage (VDC)	600		1200		1200	
Load Voltage Range (VDC)	3~300		3~500		3~650	
MOV Protective Voltage Scope (V)	423-517		675-825		738-902	
Maximum Load Current (A)	25	50	25	50	25	50
Maximum SurgeCurrent (Apk,@10ms)	75	150	75	150	75	150
Maximum On-State Voltage Drop@Rated Current (V)	1.75					
Maximum Off-State Leakage Current@Rated Load Voltage (mA)	0.5					
Minimum Load Current (mA)	2					
Maximum Turn-on Time (ms)	1					
Maximum Turn-off Time (ms)	1					

General Specifications (Ta=25°C)		
Dielectric Strength (50/60Hz)	Input/Output	2500Vrms
	Input, output/Base	2500Vrms
Insulation Resistance (@500VDC)	1000MΩ	
Operating Temperature Range	-30°C~+80°C	
Storage Temperature Range	-30°C~+100°C	
Weight (Typ)	100g	

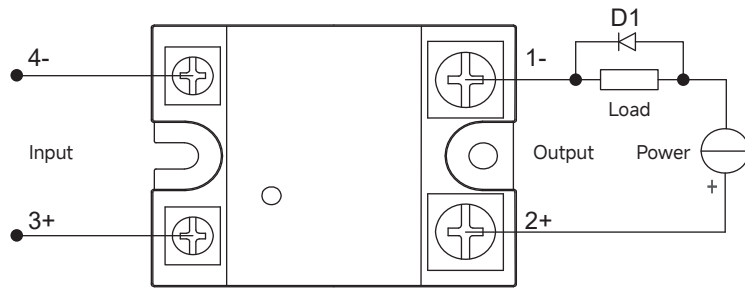
Applications

Control heating, DC power supplies, electromechanical valves, motors, medical equipment, and etc.

Outline Dimensions



Wiring Diagram

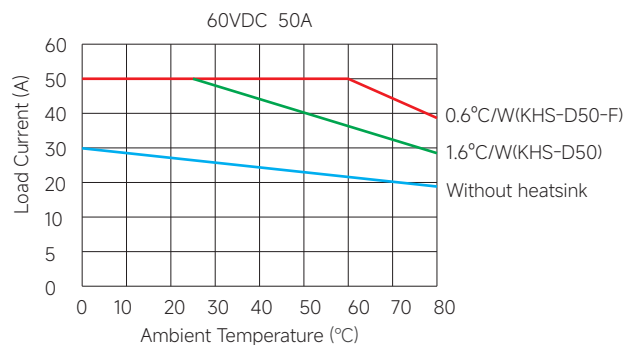
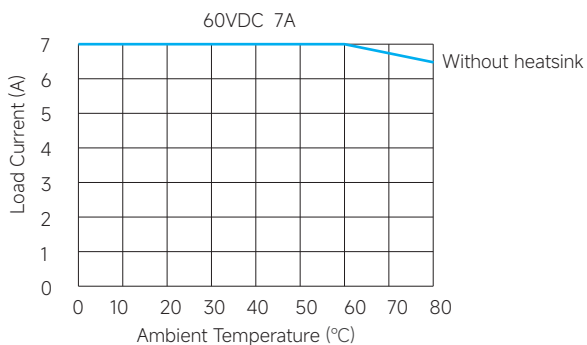
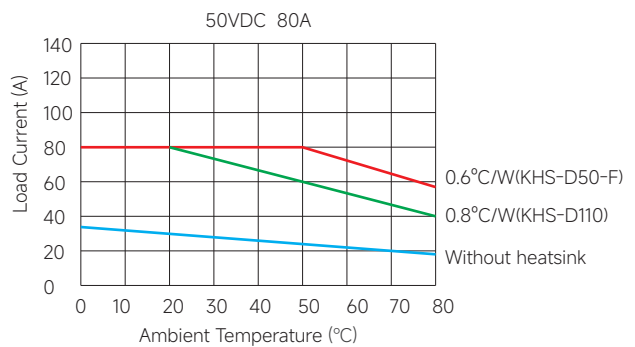
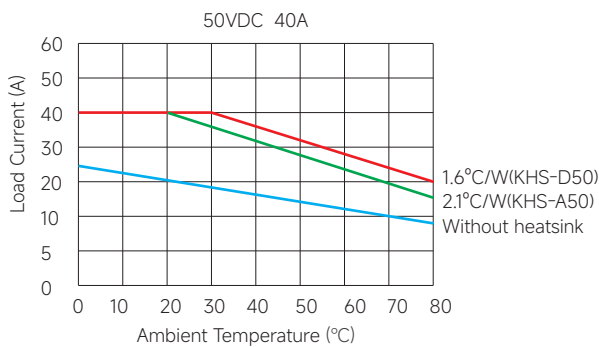
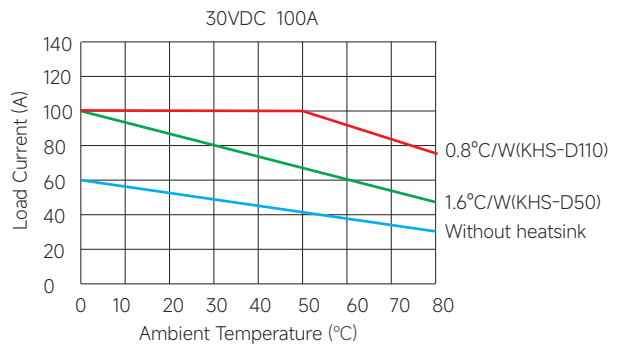
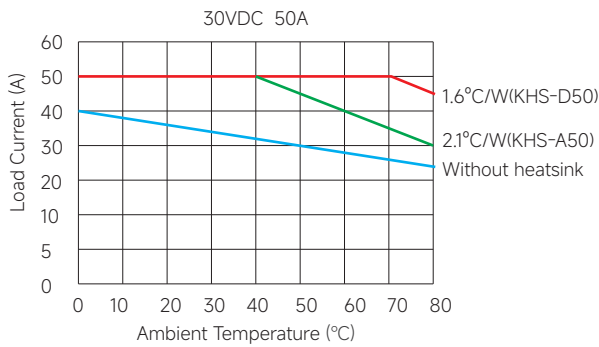


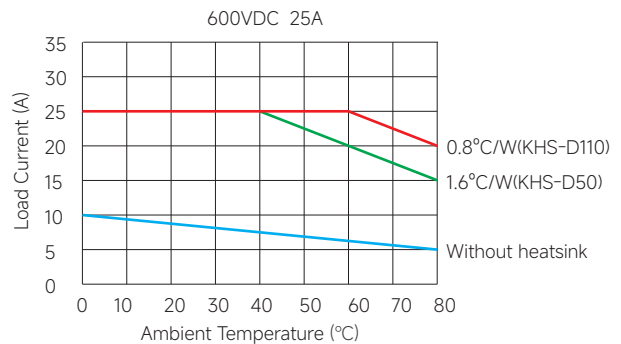
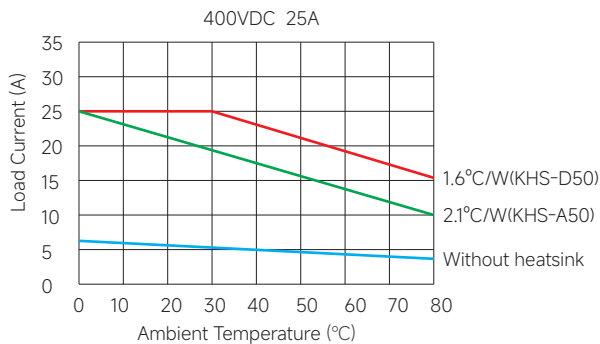
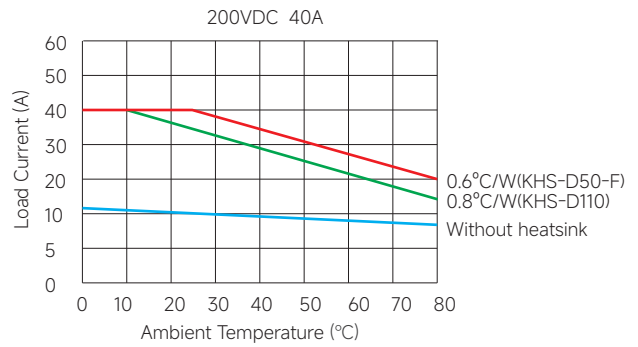
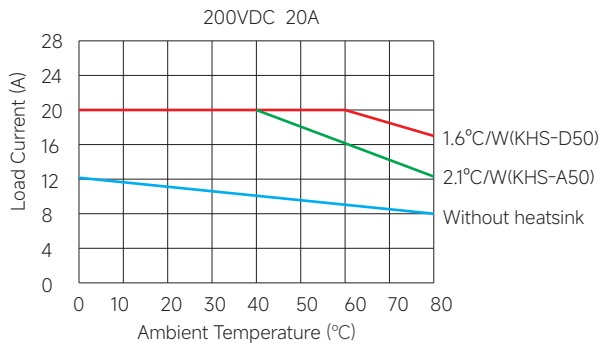
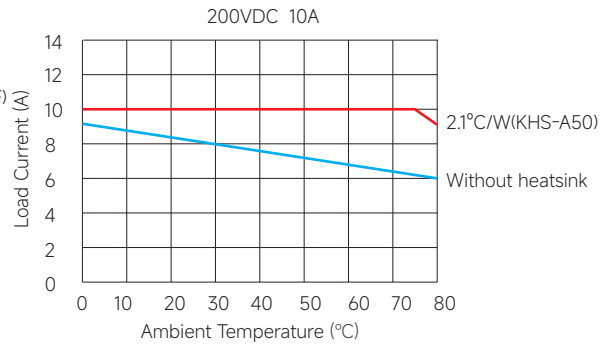
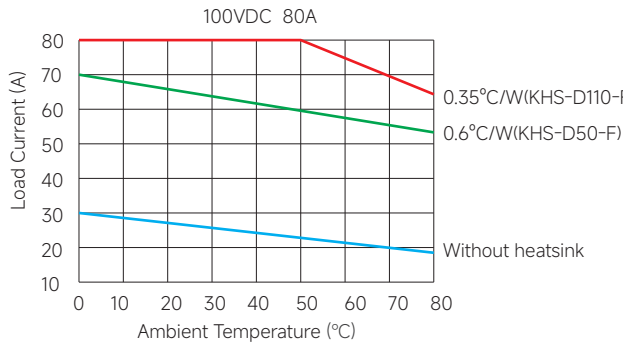
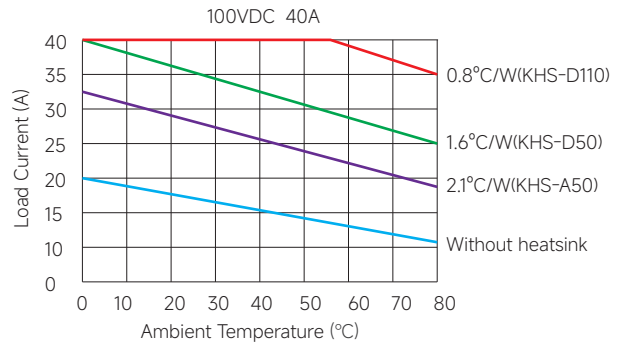
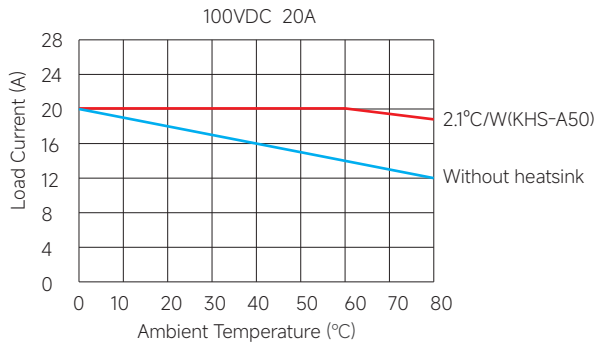
When the relay is used for inductive load control, please be sure to use a suppression circuit, just like the drawing above.

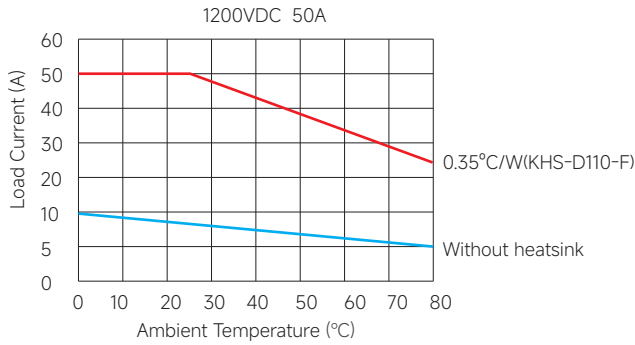
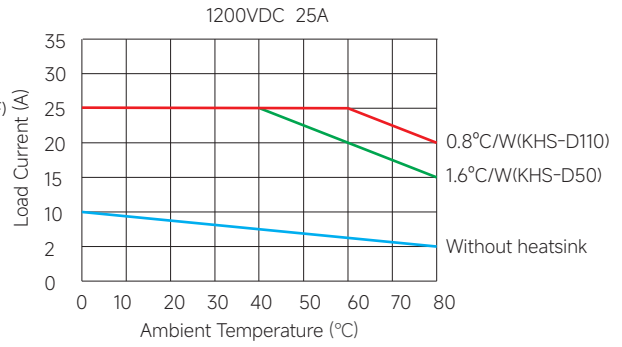
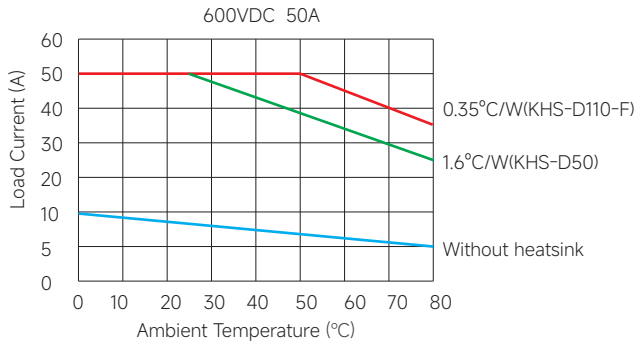
Both load terminals are inverse parallelled with a fly-wheel diode D1.

D1: Fast Recovery Diode

Thermal Derating Curve

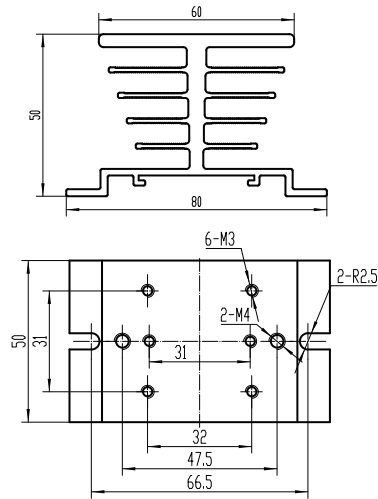






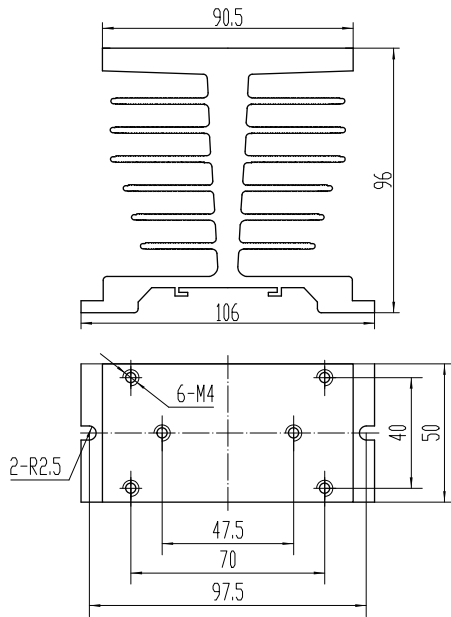
Note: The curve above shows the heatsink capability under the worst case (100% continuous operation) for a solid state relay. If your application involves intermittent operation, please contact us with your actual operating conditions (load current, on/off time, ambient temperature, etc.), and we will recommend the most suitable solution for you.

The above temperature curve is configured with radiator models as follows:

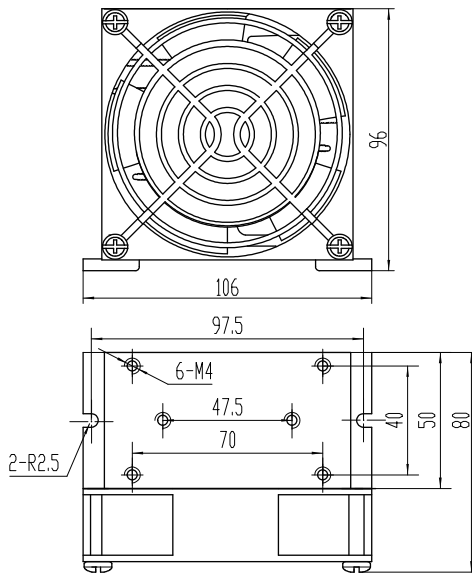


KHS-A50

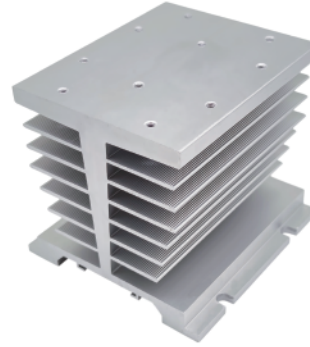
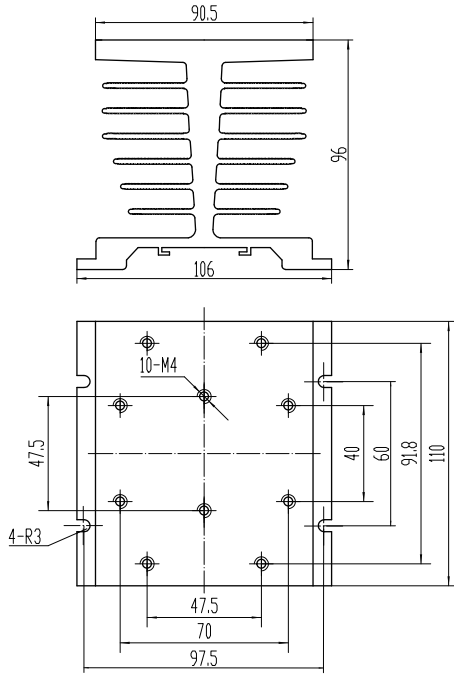
(Note: The recommended mounting hole size is 68mm)



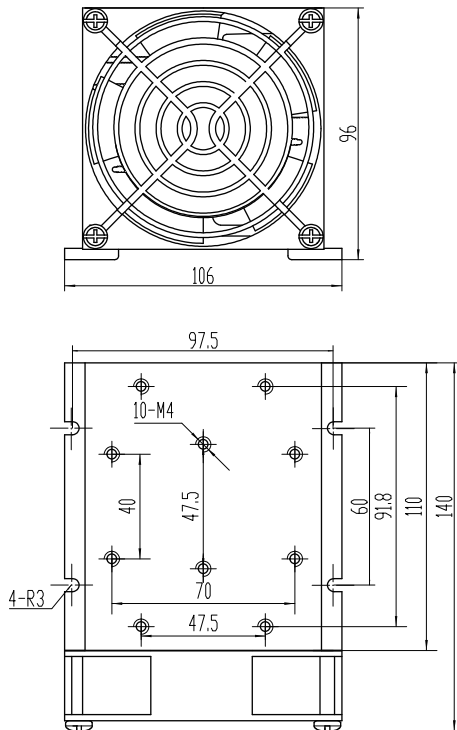
KHS-D50



KHS-D50-F



KHS-D110



KHS-D110-F

General Notes

1. Relay must be mounted to proper sized heat sink based on thermal curves. Thermal grease or a thermal pad must be used between relay and heat sink and be torqued down to (18-20)/(2.0-2.2) in-lb/Nm.
2. When connection wiring to SSR, please ensure screws are torqued down properly. Recommended torque for input screw is (13-15)/(1.5-1.7) in-lb/Nm, output screw is (18-20)/(2.0-2.2) in-lb/Nm).
3. SSR's carrying load capacity is related to the operation ambient temperature and heat dissipation condition, please refer to the Thermal Derating Curve for derating.
4. Capacitive load will produce very high surge current at the moment of conduction, which may lead to the damage of solid state relay due to the excessive surge current. Therefore, if the actual load is capacitive, or the load has paralleled large capacitance, it

! Warnings

1. The product may be hot, allow the product to cool before touching.
2. Disconnect all power before installing or working with this equipment.
3. Verify all connections and replace all covers before turning on power.