

# SG-34F

## “HOCKEY PUCK” SOLID STATE RELAY 40 THRU 80 AMPS 48 TO 530 VRMS

### FEATURES

- Photo isolation
- Up to 1200V blocking voltage
- Both zero cross or random turn-on
- High surge capability
- Built-in snubber
- UL, CUR file E43203
- SCR Output Circuitry



### INPUT

Type	DC Input	AC Input
Control Voltage Range	3 to 32 VDC	90 to 280 VAC
Turn On Voltage	3 VDC max.	90 VAC max.
Turn Off Voltage	1 VDC min.	10 VAC min.
Max. Input Current	25 mA at 32 VDC	-
Max. Reverse Voltage	-32 VDC	-

### OUTPUT

Type	240	380	480
Output Voltage Range	48 to 280 VAC	48 to 400 VAC	48 to 530 VAC
Blocking Voltage	600 Vpk	800 Vpk	1200 Vpk
Max. Leakage Current (off)	5 mA	5 mA	5 mA
Max. Voltage Drop (at rated current)	1.7 VRMS		
Max. Turn-On Time	Random Turn On (DC input): 1 ms Zero Cross Turn On (DC input): 1/2 cycles + 1 ms AC Input: 20 ms		
Max. Turn-Off Time	DC Input: 1/2 cycle + 1 ms AC Input: 40 ms		
Min. Off-State (dv/dt)	500 V/us		

### GENERAL

Dielectric Strength	4000 Vrms min. (at 50/60 Hz, 1 min.)
Insulation Resistance	1000 Min. (at 500 VDC)
Max. Capacitance (in/out)	8 pf
Ambient Temperature	Operating: -30°C (-22°F) to 80°C (176°F) Storage: -30°C (122°F) to 100°C (212°F)
	Panel Mount
Termination	Screw
Weight	88g

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7/16/08W

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## RELAY ORDERING DATA

SG-34F	D	240	A	40	Z	S	L
MODEL	INPUT VOLTAGE	OPERATING VOLTAGE RANGE	LOAD TYPE	LOAD CURRENT	ZERO CROSS OR RANDOM	OUTPUT DEVICE	LED INDICATOR
	D: 3 to 32 Vdc A: 90 to 280Vac*	240: 48 to 280 Vac 380: 48 to 400 Vac 480: 48 to 530 Vac	A: AC LOAD	40: 40A 50: 50A 60: 60A 70: 70A* 80: 80A*	Z: Zero cross turn on  P: Random turn on (not available on 480V version)	S: SCR	NIL: no LED L: with LED (not for AC input type)

\*UL pending

## MECHANICAL DATA

### Outline Dimensions

Top view dimensions: 2-M.118 [M3.0], 2-M.157 [M4.0], .795Max [20.2], .902Max [22.9].

Side view dimensions: 1.870 [47.5], 2-Ø.177 [Ø4.5], 1.00 [25.4], .449 [11.4], 1.098 [27.9], 1.799MAX [45.7], 1.743 [44.26], .323 [8.2], 2.299MAX [58.4].

### Mounting

1.870 [47.5]

### Wiring Diagram

Load power supply

Load

LOAD terminals: 1, 2

INPUT terminals: 4 (-), 3 (+)

input control signal

Dimensions in inches with metric equivalents in parentheses. Tolerance:  $\pm .010$ "

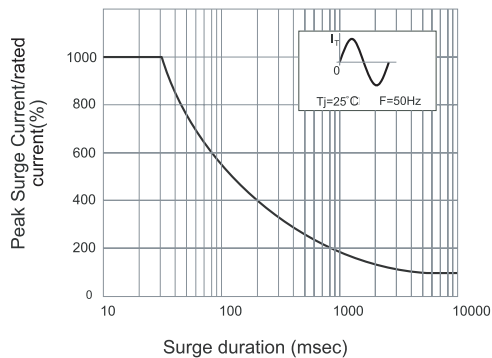
INSTALLATION	PRECAUTIONS
<ol style="list-style-type: none"> <li>When mounting the relays side by side, provide a space equivalent to the width of a single SSR between two adjacent SSRs. Otherwise, reduce the load current flow to 1/2 to 1/3 of the rated current.</li> <li>When mounting relays on heat sink surface, first apply a heat conductive grease to the metal back surface of the SSR. Press the SSR firmly onto the heat sink to ensure a good seal. Screw the SSR down to the heat sink.</li> <li>Next, wire the screw terminals and securely tighten the screws.</li> </ol>	<ol style="list-style-type: none"> <li>Before connecting a load that generates a high surge current, such as a lamp load to the SSR, make sure that the SSR can withstand the surge current of the load.</li> <li>The product data sheet shows the non-repetitive peak value of the surge current that flows through the SSR. Normally, use 1/2 of the non-repetitive peak surge current as the standard value. If a surge current exceeding that value is expected, connect a quick-blowing fuse to protect the SSR.</li> </ol>

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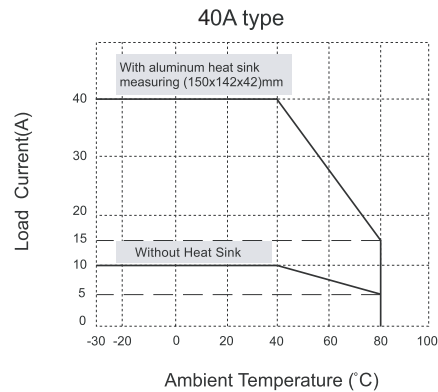
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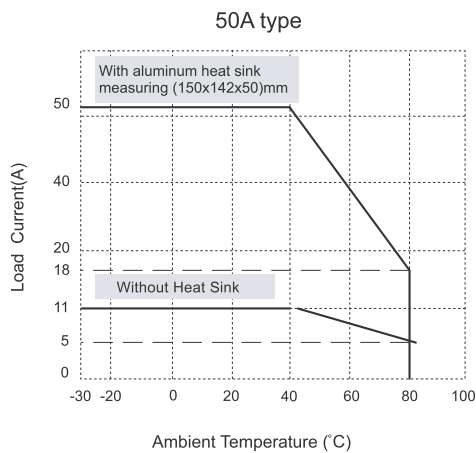
## CHARACTERISTIC CURVES



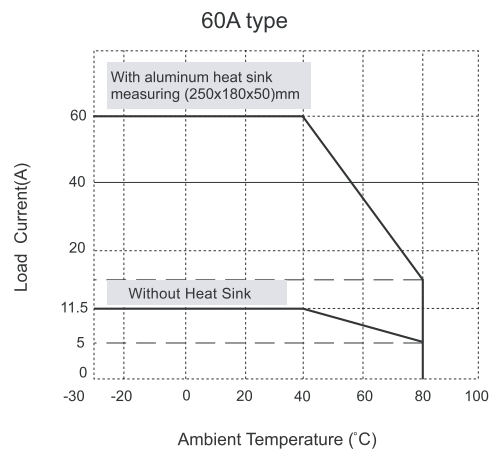
Max. Surge Current vs. duration Time



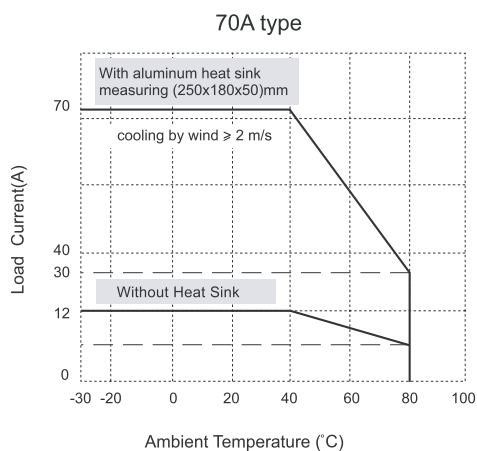
Max. load Current vs. Ambient Temp.



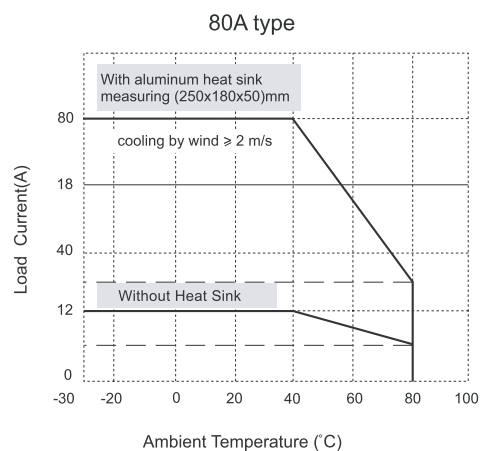
Max. load Current vs. Ambient Temp.



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