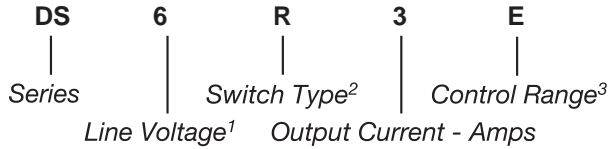


Part Number	Description
DS6R3E	3A, 60 Vdc
DS22R1E	1A, 220 Vdc

**Part Number Explanation**



**NOTES**

- 1) Line Voltage (nominal): 6 = 60 Vdc; 22 = 220 Vdc
- 2) Switch Type: R = Random turn-on
- 3) Control Range: E = 3-30 Vdc

**MECHANICAL SPECIFICATION**

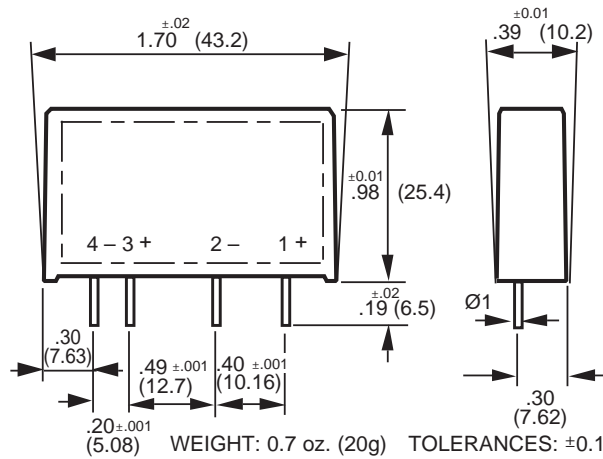


Figure 1 – DS relays; dimensions in inches (mm)

**INPUT (CONTROL) SPECIFICATION**

	Min	Max	Units
Control Range	3	30	Vdc
Input Current Range	1	30	mADC
Must Turn-Off Voltage		1	Vdc
Input Resistance (Typical)		1000	Ohms

**BLOCK DIAGRAM**

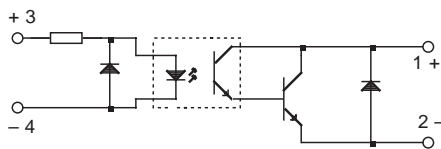


Figure 2 – DS relays



**FEATURES/BENEFITS**

- Industry standard package
- Surge tolerant
- Compact size

**DESCRIPTION**

The DS 3-amp solid-state single inline package (SIP) four-pin relays are designed for mounting on printed circuit boards. The relays are designed for medium-power DC loads. The Series DS relay is an alternative to electromechanical and reed relays.

**APPLICATIONS**

- Programmable logic controllers
- Instrumentation
- Test equipment
- Solenoid drivers

**TYPICAL APPLICATION**

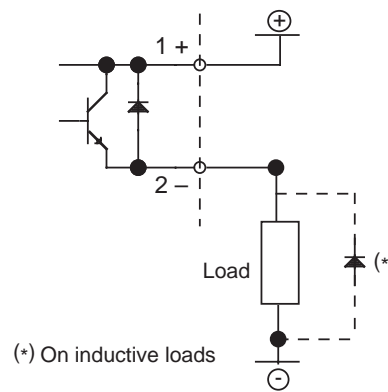


Figure 3 – DS relays

**OUTPUT (LOAD) SPECIFICATION**

	Min	Max	Unit
<b>Operating Range</b>			
DS6R3E	2	60	Vdc
DS22R1E	2	220	Vdc
<b>Peak Voltage</b>			
DS6R3E		60	Vpeak
DS22R1E		220	Vpeak
<b>Load Current Range</b>			
DS6R3E	.005	3	A
DS22R1E	.005	1	A
<b>Maximum Surge Current Rating (Non-Repetitive)</b>			
DS6R3E		10	Apeak
DS22R1E		5	Apeak
<b>On-State Voltage Drop</b>			
		1.6	Vdc
<b>Off-State Leakage Current</b>			
		1	mA
<b>Turn-On Time</b>			
DS6R3E	200		μs
DS22R1E	300		μs
<b>Turn-Off Time</b>			
DS6R3E	800		μs
DS22R1E	2000		μs
<b>Off-State dv/dt</b>			
	200		V/μs
<b>Switching Frequency</b>			
DS6R3E	0	500	Hz
DS22R1E	0	400	Hz

**LOAD CURRENT RERATING CURVES**

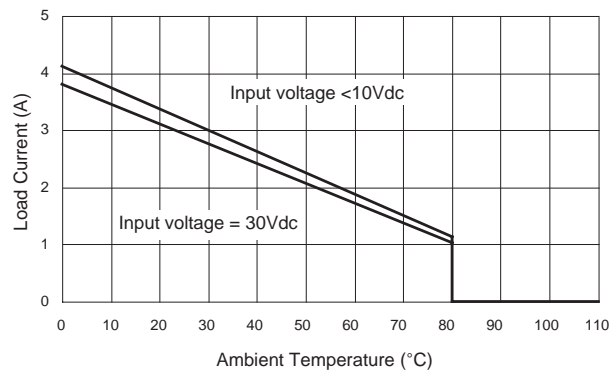


Figure 4a — DS6R3E thermal curves

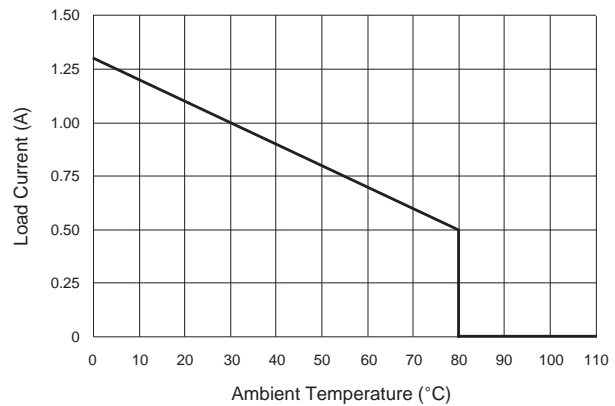


Figure 4b — DS22R1E thermal curves

**ENVIRONMENTAL SPECIFICATION**

	Min	Max	Unit
Operating Temperature	-40	80	°C
Storage Temperature	-40	105	°C
Input-Output Isolation		2500	Vrms
Input-Output Capacitance		8	pF

NOTES:

1. Electrical specifications at 25°C unless otherwise specified.
2. On inductive loads, a free-wheeling diode (or clamp) is recommended.
3. For additional/custom options, contact factory.