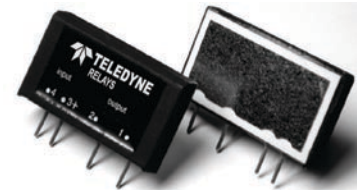


**FEATURES/BENEFITS**

- Slim compact design
- Heatsinking capabilities
- Integrated voltage protection
- High surge handling capability
- MOSFET output



**Part Number Description**

LS60DC10C-21 10A, 36 Vdc

LS60DC10F-21 10A, 36 Vdc

**Part Number Explanation**

**LS**      **60**      **DC**      **10**      **C**      **-21**  
 Series      Peak Voltage<sup>1</sup>      Switch Type<sup>2</sup>      Output Current – Amps      Control Range<sup>3</sup>      Feature<sup>4</sup>

**NOTES**

- 1) Peak Voltage (peak): 60 = 60 Vdc
- 2) Switch Type: DC = Random turn-on (DC)
- 3) Control Range: C = 3–10 Vdc; F = 7–30 Vdc
- 4) Feature: -21 = self turn-on voltage protection (transil)

**ELECTRICAL SPECIFICATIONS**

(+20°C ambient temperature unless otherwise specified)

**INPUT (CONTROL) SPECIFICATIONS**

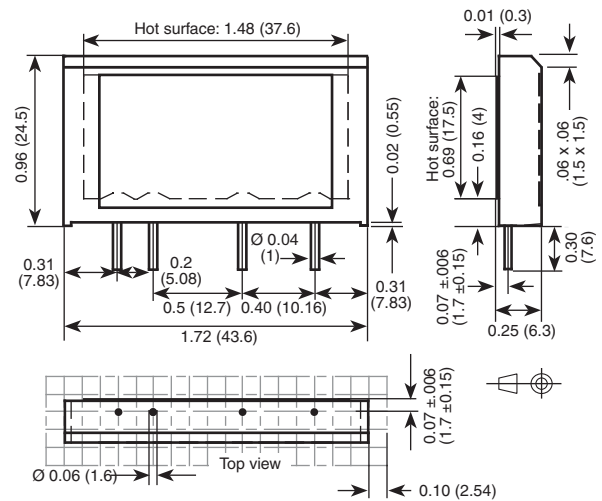
|                      | Min | Max | Units |
|----------------------|-----|-----|-------|
| <b>Control Range</b> |     |     |       |
| LS60DC10C            | 3   | 10  | Vdc   |
| LS60DC10F            | 7   | 30  | Vdc   |

| <b>Input Current Range</b> | Min | Max | Units |
|----------------------------|-----|-----|-------|
| LS60DC10C                  | 7   | 32  | mA    |
| LS60DC10F                  | 6   | 29  | mA    |

| <b>Must Turn-Off Voltage</b> | Min | Units |
|------------------------------|-----|-------|
| All relays                   | 1   | Vdc   |

| <b>Input Resistance (Typical)</b> | Min | Max  | Units |
|-----------------------------------|-----|------|-------|
| LS60DC10C                         |     | 270  | Ohms  |
| LS60DC10F                         |     | 1000 | Ohms  |

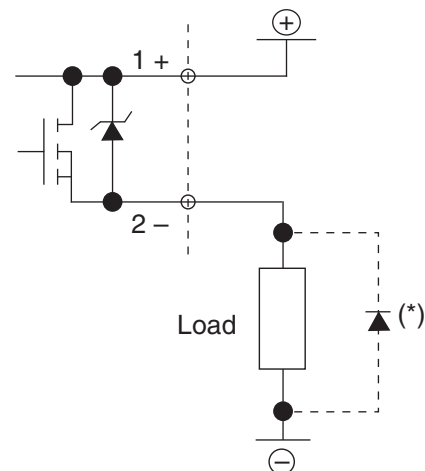
**MECHANICAL SPECIFICATION**



Tolerances: ±0.007 (±0.2)  
Weight: 0.53 oz. (15g)  
Dimensions in inches (millimeters)

Figure 1

**BLOCK DIAGRAM**



\*On inductive loads = Suppressed diode

Figure 2

**ELECTRICAL SPECIFICATIONS**

(+20°C ambient temperature unless otherwise specified)

**OUTPUT (LOAD) SPECIFICATIONS**

|                                     | Min   | Max         | Units |
|-------------------------------------|-------|-------------|-------|
| Operating Range                     | 7     | 36          | Vdc   |
| Peak Voltage                        |       | 60          | Vpeak |
| Output Current Range                | .0001 | 10          | A     |
| Clamping Voltage by Transil         |       | 40V@1mA     | V     |
|                                     |       | 58.1V@10.3A | V     |
| Maximum Energy for Transil 1ms      |       | 600         | W     |
| Maximum Power for Transil           |       | 0.5         | W     |
| Maximum Surge Current Rating (10ms) |       | 100         | A     |
| On-State Resistance (Rds-ON)        |       | 20          | mOhms |
| On-State Voltage Drop               |       | 0.2         | V     |
| Off-State Leakage Current           |       | 0.1         | mA    |
| Turn-On Time                        |       | 10          | µs    |
| Turn-Off Time                       |       | 150         | µs    |
| Operating Frequency Range           |       | **          | Hz    |

\*\* For switching frequencies greater than 1Hz, you may need to reduce the current. For more information, contact our technical department.

**GENERAL SPECIFICATIONS**

(+20°C ambient temperature unless otherwise specified)

**ENVIRONMENTAL SPECIFICATIONS**

|                               | Min  | Max  | Units |
|-------------------------------|------|------|-------|
| Operating Temperature         | -40  | +80  | °C    |
| Storage Temperature           | -40  | +120 | °C    |
| Input-Output Isolation        | 2500 |      | Vrms  |
| Input, Output, Case Isolation | 2500 |      | Vrms  |
| Rated Impulse Voltage         | 2500 |      | V     |

**BLOCK DIAGRAM**

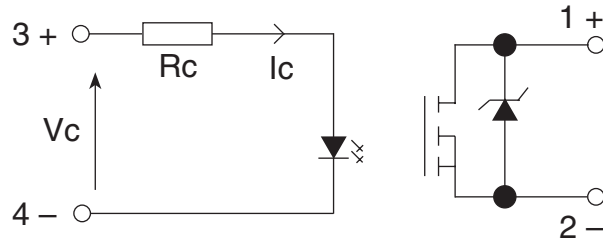


Figure 3

**THERMAL CHARACTERISTICS**

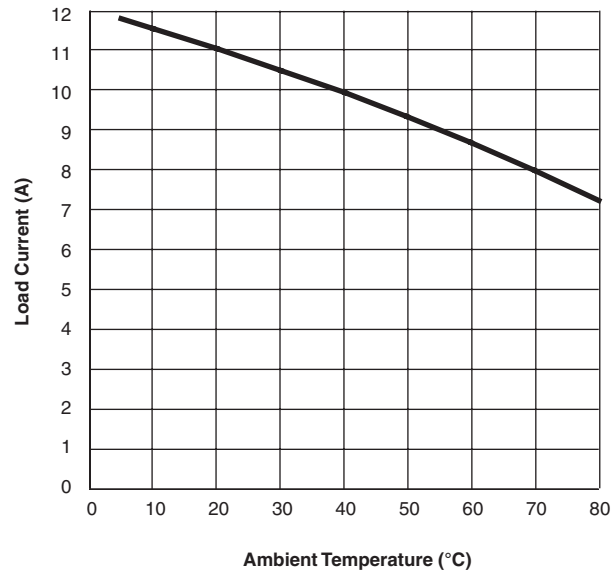


Figure 4