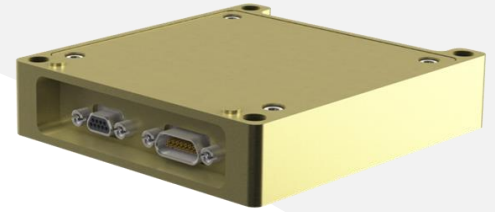




# ibeos

## Dual Channel Resettable Fuse

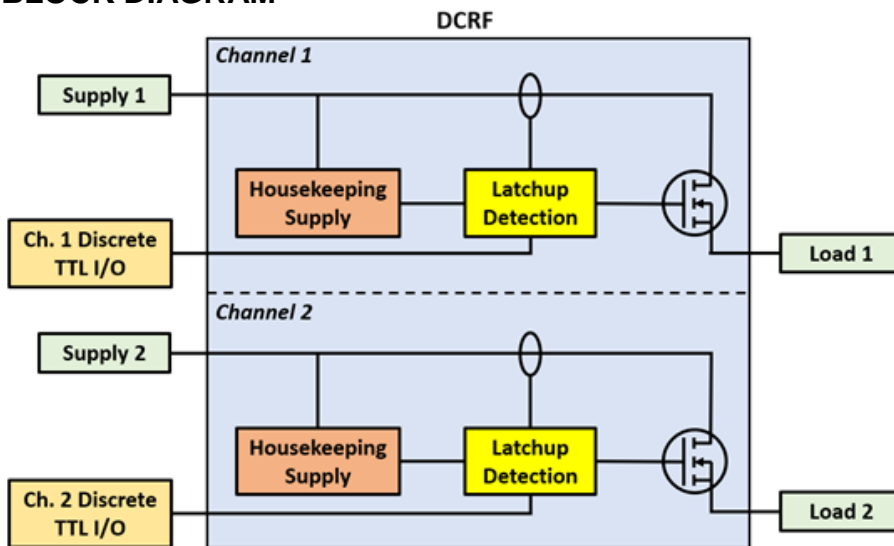


### OVERVIEW

Ibeos' Dual Channel Resettable Fuse (DCRF) is a robust, radiation tolerant system for protecting loads from destructive single event latch-up. In many cases, smallsat missions that leverage commercial electronics or sensor subsystems can significantly improve mission assurance with the DCRF.

Each of the two latching current limiter circuits in the DCRF can be configured to protect specific loads. These circuits detect latch-up based on current draw and duration thresholds. Trip thresholds are selected to avoid load spikes anticipated during regular operation. A discrete, TTL command can be used to switch to an auxiliary trip current level. When latch-up is detected, the DCRF removes load power and bleeds off current.

### BLOCK DIAGRAM



### SPECIFICATIONS

Supply Voltage	12 ± 1 V or 28 ± 4 V
Trip Level Range	0.100 to 1.500 A
Maximum Time to Trip	350 μs
Maximum Output Rise Time	0.4 to 10 ms
Operating Temperature	-40 to +85 °C
Overall Dimensions	3.4 x 3.1 x 0.7 in
Single Event	Operate: LET > 37 Survive: LET > 55
Total Ionizing Dose	30 (including ELDRS) kRad (Si)

### Discrete I/O

- Channel Status Telemetry
- Protection Override Command
- Auxiliary Trip Level Command

### Packaging

- Designed to stack for additional channels
- < 1U footprint including enclosure and mated connectors

### Reliability

- Single event transient immune
- Filtering on discrete I/O
- Radiation tested automotive grade or space qualified EEE parts

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