HTS50-12-FAST-HV-SEMICONDUCTOR-SWITCH Product Datasheet

Rebuilt engineering datasheet using server-side original source files where available. The old source contact information is not reused; current website/contact information is shown in header and footer.

Source validation

Source: HTS50-12original.pdf | Original PDF/Image embedded as dimension reference

Original source used as screenshot/data reference; contact header/footer replaced with current Reed Relay website information.

Mechanical dimensions / source drawing screenshot

HTS50-12 开关专为高电压、高速开关应用而设计，例如普克尔斯盒驱动器、偏转栅驱动器和纳秒脉冲发生器。用于需要非常快的上升时间和高峰值电流的短时脉冲应用。与使用冷阴极管、触发式火花隙或闸流管等传统高压开关相比，HTS50-12 开关是具有非常短的恢复时间、高重复率、非常低的抖动和长时间的使用寿命的一种半导体器件。其半导体设计允许在整个额定电压范围内稳定运行。操作既不需要触发变压器也不需要高辅助电压。

该开关由幅度为 3 至 20 伏的正向脉冲触发。被触发后的导通时间通常为 150 纳秒。开启上升时间主要取决于工作电压、负载电容、杂散电容和杂散电感。通过优化的电路设计，上升时间可以达到 3 纳秒以内。由于超过直流 10 KV 的电压隔离，可以打开或关闭正电压和负电压。开关也可以浮动在高电位。

1 产品特性

- 纳秒级上升时间 非常快的 di/dt
- 低开启抖动特性
- 短延迟时间
- 优异的高频特性
- 低触发电压
- 实现电流隔离
- 实现可靠开关控制

Screenshot is cropped from the original server-side file to show dimensional/specification drawing while avoiding obsolete contact headers. Confirm the final signed drawing before PCB, busbar, mounting-hole or tooling release.

Clear selection method

Step	How to select
1. Model	Use the model prefix and suffix together; do not select by prefix alone.
2. Drawing	Confirm dimensional drawing before production release.

RFQ checklist

- Exact target model or competitor part number
- Switching/carry current, voltage, load type and duty cycle
- Coil/control voltage and suppression requirements
- Mounting space, PCB/busbar/cable constraints and operating temperature
- Sample quantity, annual forecast and any drawing/customer specification

Extracted useful source specifications

Original source text excerpts
Original source has limited extractable text. Use the embedded dimension/specification screenshot and RFQ checklist; confirm final signed drawing for production.

Text excerpts are taken from the original source file after removing obsolete contact lines. If a value is unclear in OCR/text extraction, rely on the embedded source drawing and request confirmation.

Production notice: This rebuilt datasheet is for RFQ and preliminary selection. For high-voltage, mercury-wetted, EV/ESS/PV, medical, safety-critical or customer-specific applications, final signed MiRelay drawings and validation are required.