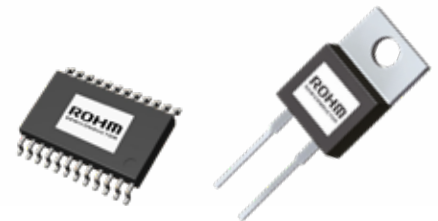




# ROHM Semiconductor

## Product Line Card



TTI stocks ROHM's full-line of leading-edge silicon carbide MOSFETs and Schottky barrier diodes, sensors, optoelectronics, and power management ICs. If you're designing for rugged environments requiring high-temperature and/or high-voltage along with higher power density solutions – call TTI for pricing and delivery on ROHM, Kionix, and LAPIS solutions.

**Reach your local sales team at 1.800.CALL.TTI**

NOTE: TTI is fully franchised for all ROHM products, however, TTI does not stock ROHM capacitors or ROHM resistors.



#### SiC MOSFETs

SiC exhibits minimal ON resistance increases and provides greater package miniaturization and energy savings than Si devices, where the ON resistance can more than double with increased temperature.

#### SiC Schottky Barrier Diodes (SBD)

Unlike Si-based fast recovery diodes where the  $t_r$  increases along with temperature, SiC devices maintain constant characteristics, resulting in better performance.

#### SiC Power Modules

SiC power modules, integrating SiC MOSFETs and SBDs, feature significantly lower switching losses than conventional IGBT modules. Modules make high frequency operation above 100kHz possible (unlike conventional products).

## Silicon Carbide (SiC)

SiC is a compound semiconductor comprised of silicon (Si) and carbon (C). Compared to Si, SiC provides ten times the dielectric breakdown field strength, three times the bandgap, and three times the thermal conductivity. These properties make SiC an attractive material for developing power devices that can far exceed the performance of their Si counterparts. SiC devices can withstand higher breakdown voltage, have lower resistivity, and can operate at higher temperatures. The guaranteed operating temperature range of current SiC devices is from 150 °C – 175 °C. This is due mainly to thermal reliability of packages. When properly packaged, operation over 200 °C is possible.

## Product Offering

- **Optoelectronics**
  - Chip and Thru-hole LEDs
  - Infrared LEDs
  - Phototransistors
  - 7 Segment Displays
  - Red/Infrared Lasers
  - Red/Infrared Dual Wave Lasers
  - Multi Beam Lasers
  - Ambient Light Sensors
- **Transistors**
  - MOSFETs
  - Bipolar Transistors
  - Digital Transistors
  - Complex Transistors
  - Transistor Arrays
- **Diodes**
  - Schottky Barrier Diodes
  - Fast Recovery Diodes
  - Zener Diodes
  - Switching Diodes
  - Rectifier Diodes
  - Band Switching Diodes
  - PIN Diodes
  - Detection Schottky Diodes
  - TVS Diodes
- **IGBTs**
  - Field Stop Trench IGBT
  - Ignition IGBT
- **Microcontrollers**
  - Ultra-Low Power 16 and 32bit MCU
  - High Noise Immunity 8 and 16bit MCU
- **Print Heads**
  - For Mobile Printers, Receipt, Label Printers, Fax
  - For Large-sized, High-speed Label Printers
  - For Large-sized, High-speed Label Printers with Heat History
- **Power Management**
  - Isolated Converters (AC/DC, DC/DC)
  - Gate Drivers
  - Voltage Detectors (Reset ICs)
  - Linear Regulators
  - Switching Regulators
  - Power Management Switch ICs
  - Automotive Intelligent Power Devices (IPDs)
  - LED Drivers
  - High-voltage Monitoring ICs
  - Leakage Detector ICs
  - Wireless Charging ICs
  - Battery Management ICs
  - Digital DC/DC Controllers
- **Motor/Actuator Drivers**
  - DC Brush Motor Drivers
  - Stepping Motor Drivers
  - Fan Motor Drivers
  - Optical Disc Drive (ODD) Motor Drivers
  - Printer Motor Drivers
  - Lens Drivers for Digital Still Cameras
  - Single Phase Brushless DC Motor Driver
  - 3-Phase Brushless DC Motor Driver
- **Display Drivers**
  - TFT Drivers
  - TN/STN LCD Drivers
  - VFD Drivers
  - OLED Drivers
  - Car Clock Drivers
- **Sensors & MEMS**
  - Geomagnetic Sensor ICs
  - Hall ICs
  - Ambient Light Sensor ICs
  - Color Sensor ICs
  - Pressure Sensor ICs
  - Optical Sensor for Heart Rate Monitor
  - Temperature Sensor ICs
  - Amplifier for Human Body Detector
  - Capacitive Switch Control ICs
  - Touch Screen Control ICs
  - MEMS Sensors
  - Infrared Image Sensor
  - Optical Sensors
- **Kionix®**
  - Kionix Accelerometers
  - Kionix Gyroscopes
  - Kionix 6 – Axis Combo Accelerometer/Gyroscope
  - Kionix 9 – Axis Combo Accelerometer/Magnetometer/Emulated Gyro Sensors
  - Kionix Sensor Fusion Software
- **Memory**
  - DRAM
  - Serial EEPROM
  - FeRAM – Ferro-Electric RAM
  - P2ROM™ – Production Programmed ROM
- **Amplifiers & Linear**
  - Operational Amplifiers (Op Amps)
  - Comparators
  - Transistor Arrays
- **Intelligent Power Modules (IPM)**
  - IGBT plus Driver – IPM
  - MOS plus Driver – IPM
- **Clocks & Timers**
  - High-Performance Clock Generators ICs
  - Real-Time Clock ICs
  - CR Control Timer ICs
- **Data Converters**
  - A/D Converters
  - D/A Converters
  - Audio Converters
- **Audio & Video**
  - Image Correction ICs
  - Audio Converters
  - Audio Amplifiers
  - Audio Processors
  - Video Amplifiers
  - Video LSI

## Driver Circuits

A driver is an electrical circuit or other electronic component used to control another circuit or component. Driver circuits typically amplify signals from controllers or microprocessors in order to control power switches or power LEDs, LCDs, motors, or other devices. The IC/microprocessor is the brains, while the driver controls the power.



1.800.CALL.TTI • [ttiinc.com](http://ttiinc.com)

