



Product Announcement

SDT2U30CP3 SDT2U40CP3 SDT2U60CP3

Industry's First 2A Schottky Rectifiers—Available in the DSN1406—are Smallest in Class

These Schottky rectifiers from Diodes Incorporated achieve the industry's highest current densities in their class, addressing market demands for smaller and more powerful electronic systems.

- SDT2U30CP3 2A 30V
- SDT2U40CP3 2A 40V
- SDT2U60CP3 2A 60V

They are well-suited for use in space-constrained applications such as IoT hardware and portable, mobile, and wearable devices.

These are the first 2A Schottky rectifiers to be designed within the X3-DSN1406-2 package. With a footprint of 0.84mm², this makes them the industry's smallest in their class. They occupy a mere 3.4% of the PCB area compared to competing SMB packaged devices, which enables system designers to maximize board real estate in modern and highly integrated consumer products.

The ultra-low forward voltage performance, typically 480mV (580mV for the SDT2U60CP3), minimizes power losses which enables the design of higher efficiency systems.

Furthermore, their superior avalanche capability makes them robust enough to deal with extreme operating conditions such as transient voltages.

The ultra-thin CSPs feature a 0.25mm (typical) profile that shortens thermal paths, leading to enhanced power dissipation, reduced thermal BOM costs, and increased reliability.

Additionally, the lead-free CSP packaged devices are fully RoHS 3.0 compliant with no exemptions.



The DIODES Advantage

These small form-factor CSP Schottky rectifiers provide the highest current density and maximize board real estate.

- **High Current Density**
Increases power-density designs
- **Low Thermal Resistance $R_{\theta JC}$ 7°C/W**
Reduces thermal BOM costs and increases reliability
- **Superior Avalanche Capability**
Improves system stability through robust transient suppression
- **Space-Saving PCB Footprint 0.84mm²**
Occupies only 3.4% PCB area compared to SMB
- **Off-Board Profile of 0.25mm (Typical)**
Enables ultra-compact designs

Applications

- Consumer electronics
- Portables/wearables
- IoT devices
- Computers
- Industrial applications

Circuit Functions

- Blocking diodes
- Reverse-polarity protection
- Electrical over-stress protection
- Freewheeling diodes
- Boost diodes

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SDT2U30CP3

SDT2U40CP3

SDT2U60CP3

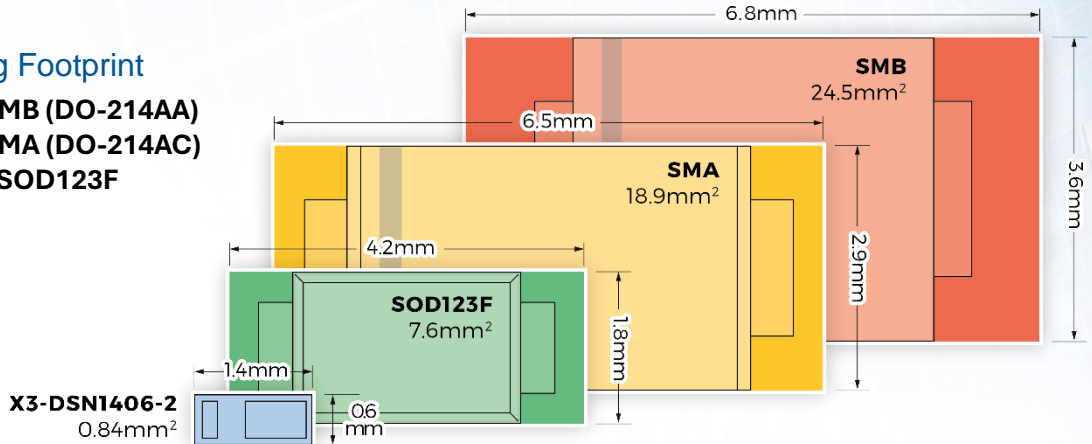
Package Footprint Comparison

Space Saving Footprint

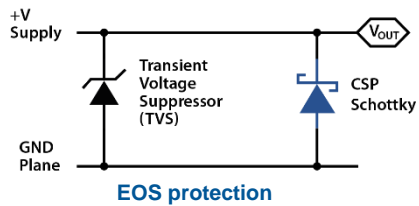
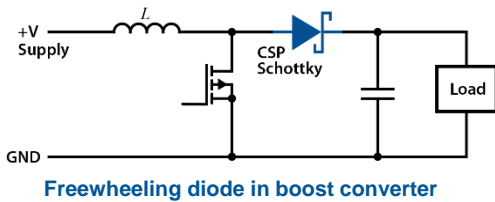
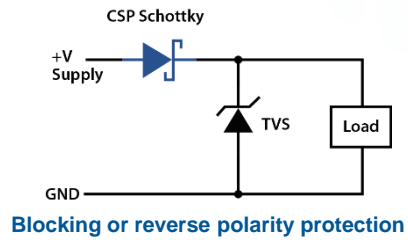
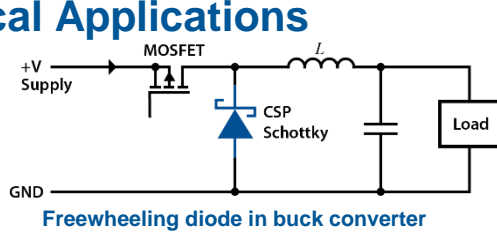
3.4% area of SMB (DO-214AA)

4.5% area of SMA (DO-214AC)

11.1% area of SOD123F



Typical Applications



Product Portfolio (visit diodes.com for full range)

Product	V _{RRM}	I _O	V _F MAX	I _R MAX	Package
	V	A	V	μA	
SDT2U30CP3	30	2	0.48	150	X3-DSN1406-2
SDT2U40CP3	40	2	0.48	150	X3-DSN1406-2
SDT2U60CP3	60	2	0.58	100	X3-DSN1406-2

Ordering Information

Orderable Part Number	Package	Packing	
		Quantity	Carrier
SDT2U30CP3-7	X3-DSN1406-2	5,000	Tape & Reel
SDT2U40CP3-7	X3-DSN1406-2	5,000	Tape & Reel
SDT2U60CP3-7	X3-DSN1406-2	5,000	Tape & Reel