

Featured Products

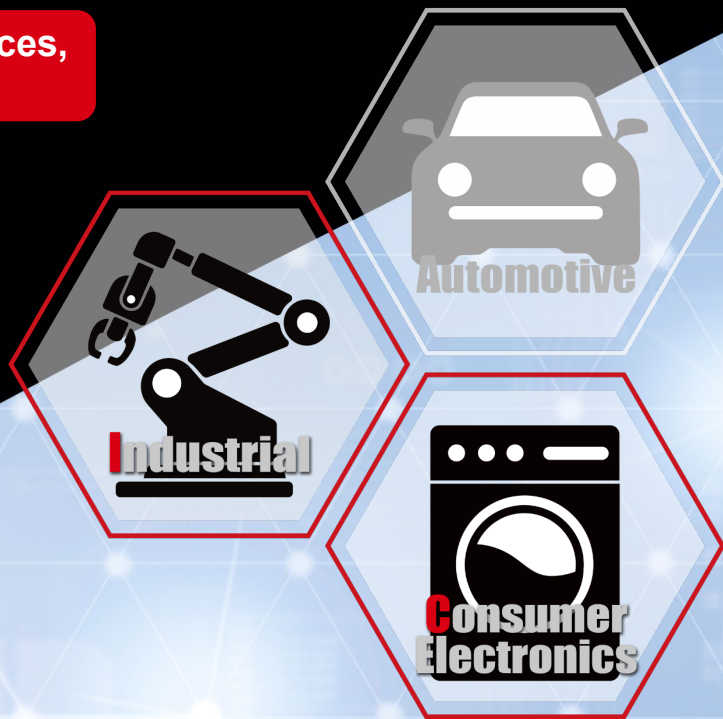
Electronics for the Future



Supports smaller, lower profile designs for home appliances, motor pumps, and more

Compact SOT-223-3 Package 600V Withstand SJ MOSFETs

R600xEND4/R600xKND4/
R600xJND4 series



The Super Junction MOSFETs R600xEND4/R600xKND4/R600xJND4 series contribute to application miniaturization with a compact SOT-223-3 package.

What's more, mounting on the same substrate wiring (land) pattern as the TO-252 package is possible, enabling use in existing circuit boards without modification.

Features

- **Compact SOT-223-3 package Super Junction MOSFETs**

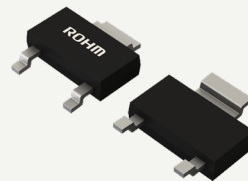
Area and thickness are reduced by 31% and 27%, respectively, compared with conventional TO-252 products, contributing to greater miniaturization, while compatibility with TO-252 land patterns allows for easy replacement.

- **Lineup includes 5 models in 3 series with varying features**

R600xEND4 series: Low noise specification ideal for small power supplies requiring minimal noise

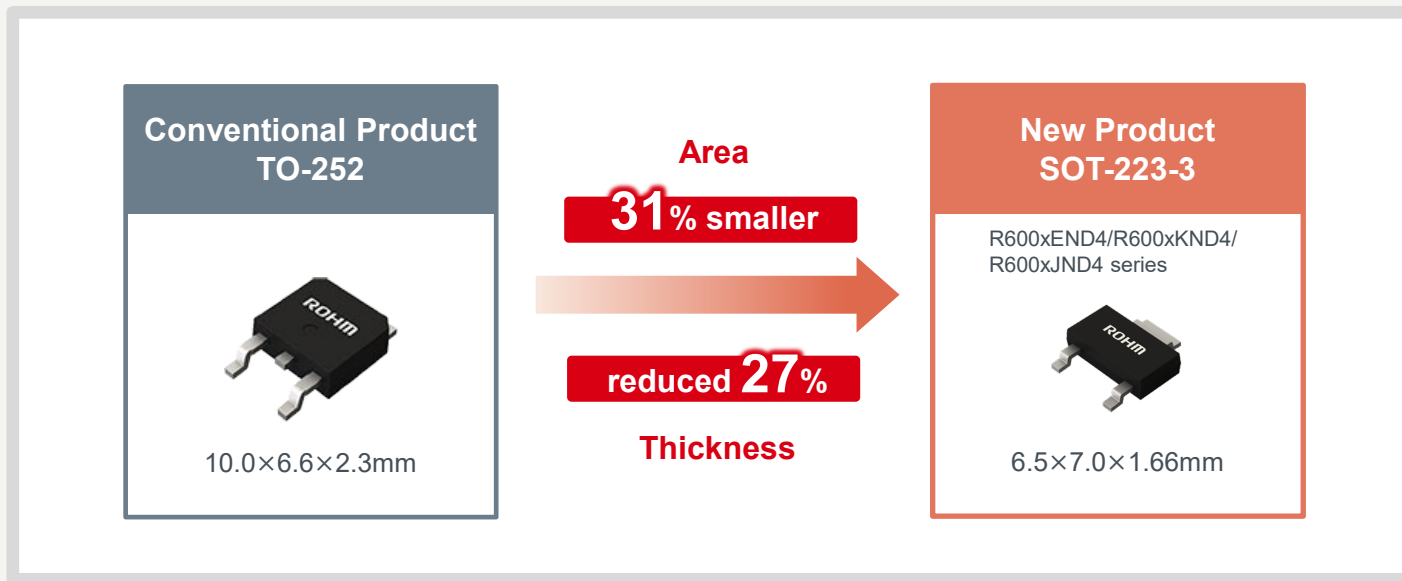
R600xKND4 series: High-speed switching optimized for compact power supplies demanding high efficiency

R600xJND4 series: Built-in high-speed diode enables suitability with motor drives requiring fast trr (reverse recovery time)



SOT-223-3
6.5×7.0×1.66mm

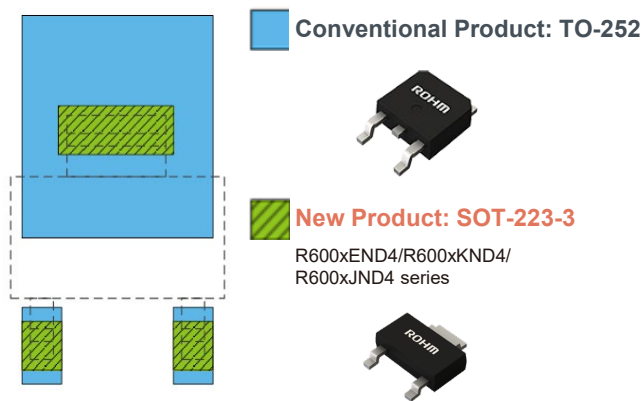
Size Comparison



Contributes to greater miniaturization and lower profile in mounted applications

The SOT-223-3 package is compatible with TO-252 wiring (land) patterns, enabling use in existing circuit boards without modification

Footprint Comparison: TO-252 vs SOT-223-3

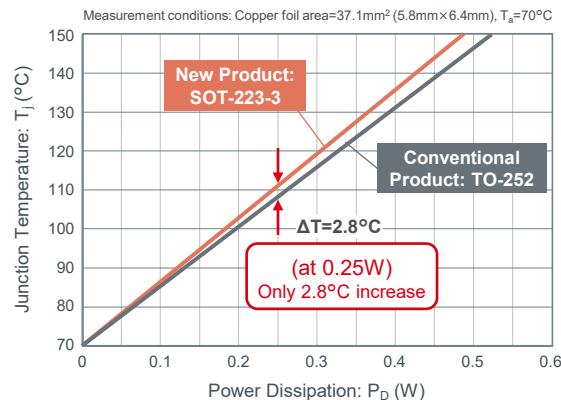


Allows use with conventional land patterns without modification

Reduces design load



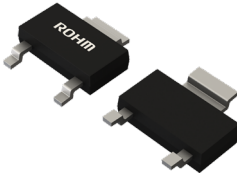








Junction Temperature Comparison During TO-252 Land Pattern Mounting



(SOT-223-3 calculated using the TO-252 land pattern)



Can be used at equivalent temperatures as the TO-252

SOT-223-3 Package 600V Super Junction MOSFETs Lineup

Part No.	Applications	Polarity [ch]	V _{DSS} [V]	I _D [A] T _C =25°C	R _{DS(on)} [Ω]		Q _g [nC]	Package [mm]		
					V _{GS} =10V		V _{GS} =10V			
					Typ	Max	Typ			
New R6004END4  	Compact power supplies	N	600	2.4	0.90	0.98	15	 SOT-223-3 6.5×7.0×1.66		
New R6003KND4  				1.3	1.30	1.50	8			
New R6006KND4  				2.8	0.72	0.87	12			
New R6002JND4  	Motors			1.0	2.50	3.25	7			
New R6003JND4  				1.3	1.65	2.15	8			

Click on the  icon to access the product page and the  icon to view the datasheet on ROHM's website.

Application Examples

- Compact power supplies for lighting, AC adapters, etc.
- Motors for home appliances and pumps (i.e. A/C)










Dedicated Super Junction MOSFETs Page

(ROHM's website)

Showcases products that deliver high-speed switching with low ON resistance



600V Super Junction MOSFET series by Specifications

Specifications	Package						
	Surface Mount Type			Through Hole Type			
	SOT-223-3	DAK/TO-252	D2PAK/LPTS	TO-220AB	TO-220FM	TO-3PF	TO-247
							
Low Noise	New R600xEND4	R60xxEND3	R60xxENJ		R60xxENX	R60xxENZ	R60xxENZ4
High-Speed Switching	New R600xKND4	R60xxKND3	R60xxKNJ		R60xxKNX	R60xxKNZ	R60xxKNZ4
		R60xxYND3		R60xxYNX3	R60xxYNX	R60xxYNZ	R60xxYNZ4
Built-in High-Speed Diode	New R600xJND4	R60xxJND3	R60xxJNJ		R60xxJNX	R60xxJNZ	R60xxJNZ4
		R60xxRND3 (Low Noise)					
		R60xxVND3		R60xxVNX3	R60xxVNX	R60xxVNZ	R60xxVNZ4

: 3rd Gen : 4th Gen

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