

# > Recovery rectifiers

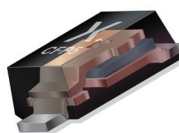
Hyperfast recovery, space-saving devices

Nexperia's recovery rectifiers deliver high power density while minimizing reverse recovery time and loss. For efficient switching and power conversion applications in automotive, industrial and consumer markets.

## Portfolio

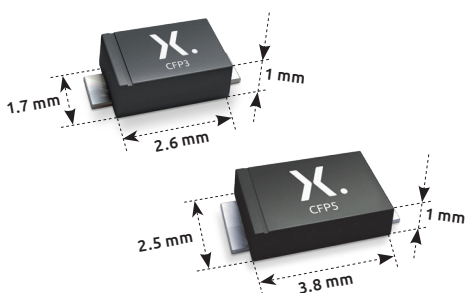
- > 200 V **Hyperfast** switching parts with optimized recovery time ( $t_{rr}$ ) of < 25 ns
- > High-speed switching capability
- > Low voltage drop ( $V_F @ I_{F\ max} \sim 1\ V$ )
- > Low leakage current, also at high temperature
- > AEC-Q101 qualified parts ( $175\ ^\circ C\ T_J\ (max)$ )

## Robust & thermally efficient



- > High current pulse capability due to solid copper clip-bond
- > High power density / high efficiency planar technology
- > Low magnetic inductance optimizes switching behavior

## Economical use of space



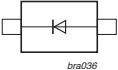


- > Just 1 mm package height for thin PCB designs
- > More than 50% footprint savings – CFP3 compared to SMA

## Key applications

- > Polarity protection
- > DC/DC conversion
- > AC/DC conversion
- > Freewheeling of inductive load
- > Standard switching application
- > High-speed switching application

# Recovery rectifiers - Automotive qualified

$V_R$ max (V)	$V_F$ max (V)	$(@) I_F$ (A)	$I_R$ max (μA)	$(@) V_R$ (V)	$t_{rr}$ max (ns)	Package	CFP5 (SOD128)	CFP3 (SOD123W)
						Size (mm)		
						$P_{tot}$ (mW) @ 1cm <sup>2</sup>	3.8 x 2.5 x 1.0	2.6 x 1.7 x 1.0
							1050	950
200	0.93	1	0.2	200	25	 <i>bra036</i>		<b>PNE20010ER</b>
	0.98	2	0.2	200	25			<b>PNE20020ER</b>
	0.95	2	0.2	200	25		<b>PNE20020EP</b>	
	0.98	3	0.2	200	30		<b>PNE20030EP</b>	
400	1.1	1	1	400	1800			PNS40010ER

Types in **bold** represent new products

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