

## Fast Soft-Recovery Diodes

## Diodes and Rectifiers

types in **bold red** represent new products

$V_{RRM}$ (V)	$I_{O(AV)} / I_{F(AV)}$ (A)	$t_{rr}$ (ns)	SOD87	SOD59	SOD113
200	1.5	250	BYD37D		
200	1.7	250	<b>PRS07D</b>		
200	8	135			BY229X-200
400	1.5	250	BYD37G		
400	1.7	250	<b>PRS07G</b>		
600	1.5	250	BYD37J		
600	1.7	250	<b>PRS07J</b>		
600	8	135		BY229-600	BY229X-600
800	1.5	300	BYD37K		
800	8	135			BY229X-800
1000	1.5	300	BYD37M		
1000	8	135		BY329-1000	
1200	8	135		BY329-1200	BY329X-1200
2000	0.8	300	BYD47-20		

## PFC & Hyperfast Recovery Diodes

$V_{RRM}$ (V)	$I_{O(AV)} / I_{F(AV)}$ (A)	$t_{rr}$ (ns)	SOD87	D <sup>2</sup> -PAK (SOT404)	TO220AC (SOD59)	TO220AB (SOT78)
100	1.7	10	BYD1100			
600	5	19		BYC5B-600	BYC5-600	
600	8	19		BYC8B-600	BYC8-600	
600	10	19		BYC10B-600	BYC10-600	
600	2 x 5	19				BYC10-600CT

### Why choose Philips Semiconductors?

#### Benefits of Hyperfast Recovery Diodes

- \* 600V Hyperfast diodes are optimised for power factor correction (PFC) circuits. They feature:
  - \* fast reverse recovery ( $t_{rr}$ ) of typically 19 ns
  - \* low forward  $V_f$
- \* 100V Hyperfast diodes are optimised for low power battery chargers

# Ultrafast Recovery Diodes

$V_{RRM}$ (V)	$I_{O(AV)} / I_{F(AV)}$ (A)	$V_F$ (V)	@ $I_F$ (A)	$t_{TR}$ (ns)	SINGLE/ DUAL	SOD87
50	2	0.98	1	25	SINGLE	BYD77A
100	2	0.98	1	25	SINGLE	BYD77B
100	20	0.95	8	25	DUAL (2 x 10A)	
150	2	0.98	1	25	SINGLE	BYD77C
150	8	0.895	8	25	SINGLE	
150	20	0.85	8	25	DUAL (2 x 10A)	
150	30	0.85	15	28	DUAL (2 x 15A)	
200	2	0.93	1	25	SINGLE	BYD127
200	2	0.98	1	25	SINGLE	BYD77D
200	8	0.895	8	25	SINGLE	
200	10	0.895	5	25	DUAL (2 x 5A)	
200	14	0.9	14	30	SINGLE	
200	16	0.95	8	25	DUAL (2 x 8A)	
200	20	0.85	8	25	DUAL (2 x 10A)	
200	30	0.82	15	28	DUAL (2 x 15A)	
200	30	0.85	15	28	DUAL (2 x 15A)	
200	40	0.85	20	30	DUAL (2 x 20A)	
300	10	1.05	5	60	DUAL (2 x 5A)	
400	1	3.6	1	30	SINGLE	BYD57G
400	2	1.15	1	50	SINGLE	BYD147
400	1.85	1.05	1	50	SINGLE	BYD77G
400	9	1.03	8	60	SINGLE	
400	20	1.05	10	60	DUAL (2 x 10A)	
400	30	1.12	15	60	DUAL (2 x 15A)	
500	9	1.03	8	60	SINGLE	
500	10	1.05	5	60	DUAL (2 x 5A)	
500	14	1.05	15	60	SINGLE	
500	20	1.05	10	60	DUAL (2 x 10A)	
500	30	1.12	15	60	DUAL (2 x 15A)	
600	1	3.6	1	30	SINGLE	BYD57J
600	2	1.25	1	50	SINGLE	BYD167
600	8	1.5	8	75	SINGLE	
600	9	1	5	55	SINGLE	
800	1	3.6	1	75	SINGLE	BYD57K
800	8	1.5	8	75	SINGLE	
1000	1	3.6	1	75	SINGLE	BYD57M
1400	1.2	3.6	1	150	SINGLE	BYD57V



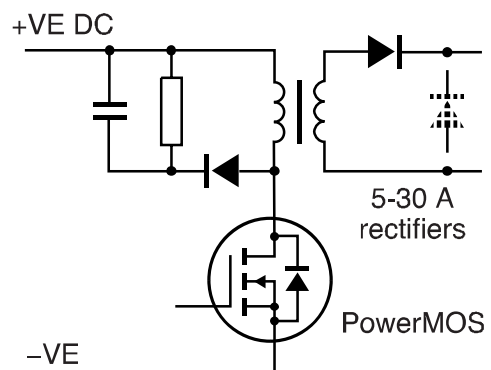
## Related literature

SOD87 hermetically sealed, surface-mount glass package for rectifiers and voltage regulators

## Order code

9397 750 11794

### Battery Charger, Computer Power Supply (Forward/Flyback Converter)



MSD115

	DPAK (SOT428)	D <sup>2</sup> PAK (SOT404)	SOD113 (2-pin SOT186A)	SOD59 (TO220AC)	SOT186A (isolated TO220AB)	TO220AB (SOT78)	TO247 (SOT429)
						BYV32E-100	
				BYW29E-150			
						BYV32E-150	
						BYV42E-150	
	BYW29ED-200			BYW29E-200	BYW29EX-200		
	BYQ28ED-200		BYQ28X-200			BYQ28E-200	
				BYV79E-200			
		BYV32EB-200				BYQ30E-200	
						BYV32E-200	
							BYV72EW-200
						BYV42E-200	
							BYQ40EW-200
						BYT28-300	
				BYV29-400			
						BYV34-400	
							BYV74W-400
			BYV29X-500	BYV29-500			
						BYT28-500	
				BYT79-500			
						BYV34-500	
						BYV44-500	
			BYR29X-600	BYR29-600			
	BYV29B-600		BYV29X-600				
				BYR29-800			

## Ripple Blocking Diodes

$I_{O(AV)} / I_{F(AV)}$ (A)	$V_{RRM}$ (V)	$V_F$ (V)	@ $I_F$ (A)	SOD87
1.2	300	2.3	1.7	BYD67

## Why choose Philips Semiconductors?

### Ripple Blocking Diodes

- \* Glass passivated for excellent stability under all conditions
- \* Fast rectifier with guaranteed minimum turn-on time for absorbing forward current transients and oscillations

### ...SOD87

- \* even smaller package than SMA
- \* better current handling capability than SMA (1.5 A SOD87 vs 1 A)