

# Switching Diodes

High speed, ultra-high speed, high withstand voltage, low leakage and high voltage in DO-35, DO-34 and ultra-mini glass packages help in selecting the package that is most suitable for mounting on the PCB. 1N series for overseas standards is also available.

## High-speed Switching Diodes

Absolute maximum ratings (Ta=25°C)

Part No.	Absolute maximum ratings (Ta=25°C)							Electrical characteristics (Ta=25°C)								Package		
	V <sub>RM</sub> (V)	V <sub>R</sub> (V)	I <sub>FM</sub> (mA)	I <sub>o</sub> (mA)	I <sub>surge</sub> (mA) 1s	T <sub>j</sub> (°C)	T <sub>stg</sub> (°C)	V <sub>F</sub> (V) Max.		I <sub>R</sub> (μA) Max.		C <sub>T</sub> (pF) Max.		trr (ns) Max.				
								I <sub>F</sub> (mA)	V <sub>R</sub> (V)	V <sub>R</sub> (V)	f (MHz)	V <sub>R</sub> (V)	I <sub>F</sub> (mA)					
1S2471	90	80	400	130	600	175	-65~+175	1.2	100	0.5	80	2	0.5	1	4	6	10	DO-35
1S2472	55	50	350	120	500	175	-65~+175	1.2	100	0.5	50	2	0.5	1	4	6	10	DO-35
1S2473	40	35	300	110	400	175	-65~+175	1.2	100	0.5	35	3	0.5	1	4	6	10	DO-35
1S2787	40	35	70	50	200	125	-65~+125	0.9	5	1.0	35	3	1	1	3	6	5	DO-35
1SS41	100	75	400	130	600	175	-65~+175	1.0	10	0.5	20	4	0	1	4	6	10	DO-35
1SS130	100	75	400	130	600	175	-65~+175	1.0	10	0.5	20	4	0	1	4	6	10	DO-34
1SS131	90	80	400	130	600	175	-65~+175	1.2	100	0.5	80	2	0.5	1	4	6	10	DO-34
1SS132	55	50	350	120	500	175	-65~+175	1.2	100	0.5	50	2	0.5	1	4	6	10	DO-34
1SS133	40	35	300	110	400	175	-65~+175	1.2	100	0.5	35	3	0.5	1	4	6	10	DO-34
1SS134	40	35	70	50	200	125	-65~+125	0.9	5	1.0	35	3	1	1	3	6	5	DO-34
1SS252	90	80	400	130	600	175	-65~+175	1.2	100	0.5	80	2	0.5	1	4	6	10	USD
1SS253	55	50	350	120	500	175	-65~+175	1.2	100	0.5	50	2	0.5	1	4	6	10	USD
1SS254	40	35	300	110	400	175	-65~+175	1.2	100	0.5	35	3	0.5	1	4	6	10	USD

## Ultra High-speed Switching Diodes

Part No.	Absolute maximum ratings (Ta=25°C)							Electrical characteristics (Ta=25°C)								Package		
	V <sub>RM</sub> (V)	V <sub>R</sub> (V)	I <sub>FM</sub> (mA)	I <sub>o</sub> (mA)	I <sub>surge</sub> (mA) 1μs	T <sub>j</sub> (°C)	T <sub>stg</sub> (°C)	V <sub>F</sub> (V) Max.		I <sub>R</sub> (μA) Max.		C <sub>T</sub> (pF) Max.		trr (ns) Max.				
								I <sub>F</sub> (mA)	V <sub>R</sub> (V)	V <sub>R</sub> (V)	f (MHz)	V <sub>R</sub> (V)	I <sub>F</sub> (mA)					
1SS92	75	65	600	200	4000	175	-65~+175	1.0	100	0.5	65	3	0	1	2	6	10	DO-35 (SC-40)
1SS93	55	50	600	200	4000	175	-65~+175	1.0	100	0.5	50	3	0	1	2	6	10	DO-35 (SC-40)
1SS94	40	35	600	200	4000	175	-65~+175	1.0	100	0.5	35	3	0	1	2	6	10	DO-35 (SC-40)
1SS136	75	65	600	200	4000	175	-65~+175	1.0	100	0.5	65	3	0	1	2	6	10	DO-34
1SS137	55	50	600	200	4000	175	-65~+175	1.0	100	0.5	50	3	0	1	2	6	10	DO-34
1SS138	40	35	600	200	4000	175	-65~+175	1.0	100	0.5	35	3	0	1	2	6	10	DO-34

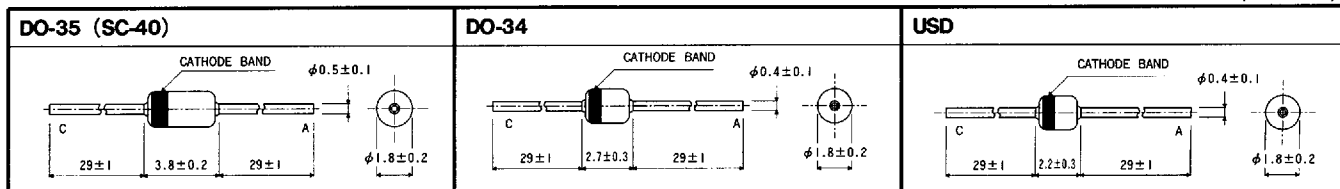
## Low-leakage Switching Diodes

Part No.	Absolute maximum ratings (Ta=25°C)							Electrical characteristics (Ta=25°C)								Package		
	V <sub>RM</sub> (V)	V <sub>R</sub> (V)	I <sub>FM</sub> (mA)	I <sub>o</sub> (mA)	I <sub>surge</sub> (mA) 1s	T <sub>j</sub> (°C)	T <sub>stg</sub> (°C)	V <sub>F</sub> (V) Max.		I <sub>R</sub> (μA) Max.		C <sub>T</sub> (pF) Max.		trr (ns) Max.				
								I <sub>F</sub> (mA)	V <sub>R</sub> (V)	V <sub>R</sub> (V)	f (MHz)	V <sub>R</sub> (V)	I <sub>F</sub> (mA)					
1SS139	90	80	400	130	600	175	-65~+175	1.2	100	0.02	30	5	0.5	1	50	6	10	DO-35 (SC-40)
1SS140	55	50	350	120	500	175	-65~+175	1.2	100	0.01	25	5	0.5	1	50	6	10	DO-35 (SC-40)
1SS141	40	35	300	110	400	175	-65~+175	1.2	100	0.01	20	5	0.5	1	50	6	10	DO-35 (SC-40)
1SS290	90	80	400	130	600	175	-65~+175	1.2	100	0.02	30	5	0.5	1	50	6	10	DO-34
1SS291	55	50	350	120	500	175	-65~+175	1.2	100	0.01	25	5	0.5	1	50	6	10	DO-34
1SS292	40	35	300	110	400	175	-65~+175	1.2	100	0.01	20	5	0.5	1	50	6	10	DO-34

## High-voltage Switching Diodes

Part No.	Absolute maximum ratings (Ta=25°C)							Electrical characteristics (Ta=25°C)								Package		
	V <sub>RM</sub> (V)	V <sub>R</sub> (V)	I <sub>FM</sub> (mA)	I <sub>o</sub> (mA)	I <sub>surge</sub> (mA) 1s	T <sub>j</sub> (°C)	T <sub>stg</sub> (°C)	V <sub>F</sub> (V) Max.		I <sub>R</sub> (μA) Max.		C <sub>T</sub> (pF) Max.		trr (ns) Max.				
								I <sub>F</sub> (mA)	V <sub>R</sub> (V)	V <sub>R</sub> (V)	f (MHz)	V <sub>R</sub> (V)	I <sub>F</sub> (mA)					
1SS142	300	250	625	200	1000	175	-65~+175	1.0	100	0.5	250	10	0	1	400	6	10	DO-35
1SS143	250	200	625	200	1000	175	-65~+175	1.0	100	0.5	200	10	0	1	400	6	10	DO-35
1SS144	200	150	625	200	1000	175	-65~+175	1.0	100	0.5	150	10	0	1	400	6	10	DO-35
1SS145	300	250	625	200	1000	175	-65~+175	1.0	100	0.5	250	10	0	1	400	6	10	DO-34
1SS146	250	200	625	200	1000	175	-65~+175	1.0	100	0.5	200	10	0	1	400	6	10	DO-34
1SS147	200	150	625	200	1000	175	-65~+175	1.0	100	0.5	150	10	0	1	400	6	10	DO-34
1SS244	250	220	625	200	1000	175	-65~+175	1.5	200	10	220	3	0	1	75	I <sub>F</sub> = -I <sub>R</sub> = 20mA		DO-34
1SS245	250	220	625	200	1000	175	-65~+175	1.5	200	10	220	3	0	1	75	I <sub>F</sub> = -I <sub>R</sub> = 20mA		DO-35

(Unit : mm)



## Product Designation

- When ordering, specify the type.
- Check each code against the tables shown below.
- Fill a space with the next character.

Package	Bulk : blank
DO-35	Radial taping
DO-34	Axial taping
USD	Forming

## Packaging



7828999 0009686 712

Part No.

●JEDEC Standard <Absolute maximum ratings>

Absolute maximum ratings (Ta=25°C)

Part No.	V <sub>RM</sub> (V)	V <sub>R</sub> (V)	I <sub>FM</sub> (mA)	I <sub>o</sub> (mA)	I <sub>F</sub> (mA)	I <sub>FSM</sub> 1μs (A)	P (mW)	T <sub>j</sub> (°C)	T <sub>opr</sub> (°C)	T <sub>stg</sub> (°C)	Package
1N4148 1N914	100	75	450	150	200	2	500	200	-65~+200	-65~+200	DO-35
1N4149 1N916	100	75	450	150	200	2	500	200	-65~+200	-65~+200	DO-35
1N4150 1N3600	50	50	600	200	250	4	500	200	-65~+200	-65~+200	DO-35
1N4151 1N3604	75	50	450	150	200	2	500	200	-65~+200	-65~+200	DO-35
1N4152 1N3605	40	30	450	150	200	2	500	200	-65~+200	-65~+200	DO-35
1N4153 1N3606	75	50	450	150	200	2	500	200	-65~+200	-65~+200	DO-35
1N4154	35	25	450	150	200	2	500	200	-65~+200	-65~+200	DO-35
1N4446 1N914A	100	75	450	150	200	2	500	200	-65~+200	-65~+200	DO-35
1N4447 1N916A	100	75	450	150	200	2	500	200	-65~+200	-65~+200	DO-35
1N4448 1N914B	100	75	450	150	200	2	500	200	-65~+200	-65~+200	DO-35
1N4449 1N916B	100	75	450	150	200	2	500	200	-65~+200	-65~+200	DO-35
1N4450	40	30	600	200	250	4	500	200	-65~+200	-65~+200	DO-35
1N4454 1N3064	75	50	450	150	200	2	500	200	-65~+200	-65~+200	DO-35
1N4606	85	70	600	200	250	4	500	200	-65~+200	-65~+200	DO-35
1N4531	100	75	450	150	200	2	500	200	-65~+200	-65~+200	DO-34
1N4532	70	50	450	150	200	2	500	200	-65~+200	-65~+200	DO-34
1N4533	40	30	450	150	200	2	500	200	-65~+200	-65~+200	DO-34
1N4534	75	50	450	150	200	2	500	200	-65~+200	-65~+200	DO-34
1N4536	35	25	450	150	200	2	500	200	-65~+200	-65~+200	DO-34

Switching Diodes

Diodes

<Electrical characteristics>

Part No.	V <sub>F</sub> (V)												BV (V) Min.		I <sub>R</sub> (μA) Max.		C <sub>T</sub> (pF)	trr (ns)												
	@ 0.1mA		@ 0.25mA		@ 1mA		@ 2mA		@ 5mA		@ 10mA		@ 20mA		@ 30mA				@ 50mA		@ 100mA		@ 200mA		@ 250mA		@ 25°C	@ 150°C	V <sub>R</sub> =0 f=1MHz	V <sub>R</sub> =6V I <sub>F</sub> =10mA R <sub>θ</sub> =100Ω
	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower			Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower				
1N4148 1N914	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	75	100	0.025	20	5.0	75	50.0	20	4	4			
1N4149 1N916	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	-	100	0.025	20	5.0	75	50.0	20	2	4			
1N4150 1N3600	/	/	0.54	/	/	0.66	/	/	/	0.76	0.82	0.87	/	/	/	/	/	-	50	0.1	50	100.0	50	50	2.5	6				
1N4151 1N3604	/	/	0.62	/	/	0.74	/	/	/	0.86	0.92	1.0	/	/	/	/	/	75	-	0.05	50	50.0	50	50	2	2				
1N4152 1N3605	0.49	0.53	0.59	0.62	/	0.70	0.74	/	/	/	/	/	/	/	/	/	/	40	-	0.05	30	50.0	30	50	2	2				
1N4153 1N3606	0.49	0.53	0.59	0.62	/	0.70	0.74	/	/	/	/	/	/	/	/	/	/	75	-	0.05	50	50.0	50	50	2	2				
1N4154	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	35	-	0.1	25	100.0	25	100.0	25	4	2			
1N4446 1N914A	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	-	100	0.025	20	5.0	75	50.0	20	4	4			
1N4447 1N916A	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	-	100	0.025	20	5.0	75	50.0	20	2	4			
1N4448 1N914B	/	/	/	/	0.62	/	/	/	/	/	/	/	/	/	/	/	/	-	100	0.025	20	5.0	75	50.0	20	4	4			
1N4449 1N916B	/	/	/	/	0.72	/	/	/	/	/	/	/	/	/	/	/	/	-	100	0.025	20	5.0	75	50.0	20	2	4			
1N4450	0.42	/	0.52	/	/	0.64	/	/	/	0.80	/	/	/	/	/	/	/	40	-	0.05	30	50.0	30	50	30	4	6			
1N4454 1N3064	/	/	/	/	/	0.72	/	/	/	0.92	/	/	/	/	/	/	/	75	-	0.1	50	100.0	50	100.0	50	2	2			
1N4606	0.43	/	0.54	/	/	0.65	/	/	/	0.74	0.79	0.86	/	/	/	/	/	-	85	0.1	50	0.25	70	25.0	50 (100°C)	2.5	4			
1N4531*	/	/	/	/	/	0.77	/	/	/	0.86	0.92	1.0	1.1	/	/	/	/	75	100	0.025	20	5.0	75	50.0	20	4	4			
1N4532*	/	/	/	/	/	1.0	/	/	/	/	/	/	/	/	/	/	/	75	-	0.1	50	100.0	50	100.0	50	2	2			
1N4533*	0.49	0.53	0.59	0.62	/	0.70	0.74	/	/	0.81	0.88	/	/	/	/	/	/	40	-	0.05	30	50.0	30	50	30	2	2			
1N4534*	0.49	0.53	0.59	0.62	/	0.70	0.74	/	/	0.81	0.88	/	/	/	/	/	/	75	-	0.05	50	50.0	50	50	50	2	2			
1N4536*	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	35	-	0.1	25	100.0	25	100.0	25	4	2			

Notes : 1. V<sub>F</sub> : Upper, Min : Lower, Max.  
2. \* : Supplied in DO-34 package, No symbol : DO-35 package.

The Case and Basic ordering Units for Standard and Special Products Units

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Part Marking

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