

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 _{RM} (V)	V _R (V)	I _{FM} (mA)	I _O (mA)	I _{surge} (mA) 1s	T _J (°C)	T _{stg} (°C)	V _F (V) Max.		I _R (μA) Max.		C _T (pF) Max.			trr (ns) Max.			
								I _F (mA)		V _R (V)		V _R (V)	f (MHz)	V _R (V)	I _F (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 _{RM} (V)	V _R (V)	I _{FM} (mA)	I _O (mA)	I _{surge} (mA) 1 μs	T _J (°C)	T _{stg} (°C)	V _F (V) Max.		I _R (μA) Max.		C _T (pF) Max.			trr (ns) Max.			
								I _F (mA)		V _R (V)		V _R (V)	f (MHz)	V _R (V)	I _F (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 _{RM} (V)	V _R (V)	I _{FM} (mA)	I _O (mA)	I _{surge} (mA) 1s	T _J (°C)	T _{stg} (°C)	V _F (V) Max.		I _R (μA) Max.		C _T (pF) Max.			trr (ns) Max.			
								I _F (mA)		V _R (V)		V _R (V)	f (MHz)	V _R (V)	I _F (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 _{RM} (V)	V _R (V)	I _{RM} (mA)	I _O (mA)	I _{surge} (mA) 1s	T _J (°C)	T _{stg} (°C)	V _F (V) Max.		I _R (μA) Max.		C _T (pF) Max.			trr (ns) Max.			
								I _F (mA)	V _R (V)	I _R (μA)	V _R (V)	f (MHz)	V _R (V)	I _F (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 _F = -I _R = 20mA	DO-34	
1SS245	250	220	625	200	1000	175	-65~+175	1.5	200	10	220	3	0	1	75	I _F = -I _R = 20mA	DO-35	

(Unit : mm)

DO-35 (SC-40)	DO-34	USD

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

1 S 2 4 7 1 T - 7 7

7828999 0009686 712

Part No.

JEDEC Standard <Absolute maximum ratings>

Absolute maximum ratings (Ta=25°C)

Part No.	V _{RM} (V)	V _R (V)	I _{FM} (mA)	I _O (mA)	I _F (mA)	I _{FSM} 1 μs (A)	P (mW)	T _j (°C)	T _{opr} (°C)	T _{stg} (°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 _F (V)												BV (V) Min.		I _R (μA) Max.		C _T (pF)	trr (ns)		
	@ 0.1mA	@ 0.25mA	@ 1mA	@ 2mA	@ 5mA	@ 10mA	@ 20mA	@ 30mA	@ 50mA	@ 100mA	@ 200mA	@ 250mA	@ 5 μA	@ 100 μA	@ 25°C	@ 150°C				
	V _R (V)		V _R (V)																	
1N4148 1N914						1.0							75	100	0.025 5.0	20 75	50.0	20	4	4
1N4149 1N916						1.0							—	100	0.025 5.0	20 75	50.0	20	2	4
1N4150 1N3600			0.54 0.62			0.66 0.74			0.76 0.86	0.82 0.92	0.87 1.0		—	50	0.1	50	100.0	50	2.5	6
1N4151 1N3604									1.0				75	—	0.05	50	50.0	50	2	2
1N4152 1N3605	0.49 0.55	0.53 0.59	0.59 0.67	0.62 0.70		0.70 0.81	0.74 0.88						40	—	0.05	30	50.0	30	2	2
1N4153 1N3606	0.49 0.55	0.53 0.59	0.59 0.67	0.62 0.70		0.70 0.81	0.74 0.88						75	—	0.05	50	50.0	50	2	2
1N4154								1.0					35	—	0.1	25	100.0	25	4	2
1N4446 1N914A								1.0					—	100	0.025 5.0	20 75	50.0	20	4	4
1N4447 1N916A								1.0					—	100	0.025 5.0	20 75	50.0	20	2	4
1N4448 1N914B					0.62 0.72						1.0		—	100	0.025 5.0	20 75	50.0	20	4	4
1N4449 1N916B					0.63 0.73						1.0		—	100	0.025 5.0	20 75	50.0	20	2	4
1N4450	0.42 0.54		0.52 0.64			0.64 0.72			0.80 0.92			1.0	40	—	0.05	30	50.0	30	4	6
1N4454 1N3064						1.0							75	—	0.1	50	100.0	50	2	2
1N4606	0.43 0.55		0.54 0.66			0.65 0.77			0.74 0.86	0.79 0.92	0.86 1.0	1.1	—	85	0.1 0.25	50 70	25.0 (100°C)	50 (100°C)	2.5	4
1N4531*						1.0							75	100	0.025 5.0	20 75	50.0	20	4	4
1N4532*						1.0							75	—	0.1	50	100.0	50	2	2
1N4533*	0.49 0.55	0.53 0.59	0.59 0.67	0.62 0.70		0.70 0.81	0.74 0.88						40	—	0.05	30	50.0	30	2	2
1N4534*	0.49 0.55	0.53 0.59	0.59 0.67	0.62 0.70		0.70 0.81	0.74 0.88						75	—	0.05	50	50.0	50	2	2
1N4536*								1.0					35	—	0.1	25	100.0	25	4	2

Notes : 1. V_F : Upper, Min : Lower, Max.
2. * : Supplied in DO-34 package, No symbol : DO-35 package.

The Class and Basic ordering
Units for Standard and Semi-
Standard Products Units

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