

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) 1μs	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

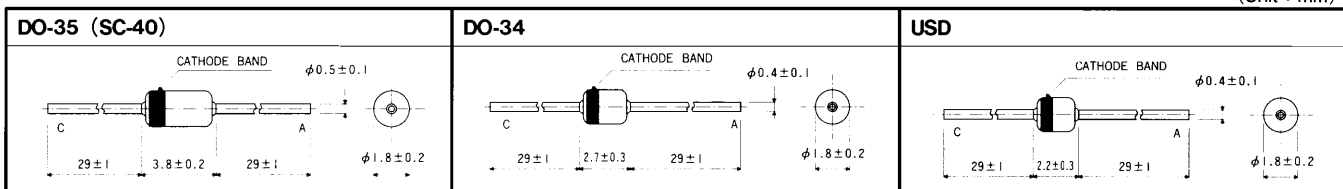
●Low-leakage Switching Diodes

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 _{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)					
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)

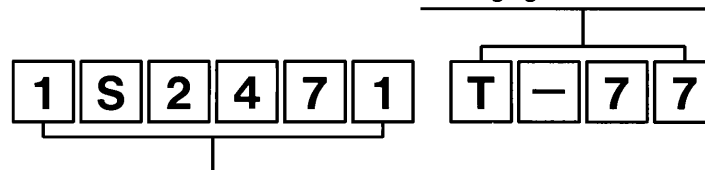


●Product Designation

- 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



Part No.

●JEDEC Standard <Absolute maximum ratings>

Absolute maximum rating:

Part No.	V _{FM} (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)	
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

<Electrical characteristics >

Part No.	V _F (V)														BV (V) Min.		I _R (μA) Max.		C _T (pF)	trr (ns)		
															@ 5 μA	@ 100 μA	@ 25°C				V _R =0 f=1MHz	V _R =6V I _F =10mA R _θ =100Ω
	@ 0.1mA	@ 0.25mA	@ 1mA	@ 2mA	@ 5mA	@ 10mA	@ 20mA	@ 30mA	@ 50mA	@ 100mA	@ 200mA	@ 250mA	V _R (V)	V _R (V)								
1N4148 1N914	/	/	/	/	/	/	/	/	/	/	/	/	/	/	75	100	0.025	20	50.0	20	4	4
1N4149 1N916	/	/	/	/	/	/	/	/	/	/	/	/	/	/	-	100	0.025	20	50.0	20	2	4
1N4150 1N3600	/	/	0.54	/	/	0.66	/	/	0.76	0.82	0.87	/	/	/	-	50	0.1	50	100.0	50	2.5	6
1N4151 1N3604	/	/	/	/	/	/	/	/	/	0.86	0.92	1.0	/	/	75	-	0.05	50	50.0	50	2	2
1N4152 1N3605	0.49	0.53	0.59	0.62	/	0.70	0.74	/	/	/	/	/	/	40	-	0.05	30	50.0	30	2	2	
1N4153 1N3606	0.49	0.53	0.59	0.62	/	0.70	0.74	/	/	/	/	/	/	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	20	50.0	20	4	4	
1N4447 1N916A	/	/	/	/	/	/	/	/	/	/	1.0	/	/	-	100	0.025	20	50.0	20	2	4	
1N4448 1N914B	/	/	/	/	0.62	0.72	/	/	/	/	1.0	/	/	-	100	0.025	20	50.0	20	4	4	
1N4449 1N916B	/	/	/	/	0.63	0.73	/	/	/	/	1.0	/	/	-	100	0.025	20	50.0	20	2	4	
1N4450	0.42	/	0.52	/	/	0.64	/	/	0.80	/	/	/	/	40	-	0.05	30	50.0	30	4	6	
1N4454 1N3064	/	/	/	/	/	/	/	/	/	0.92	1.0	/	/	75	-	0.1	50	100.0	50	2	2	
1N4606	0.43	/	0.54	/	/	0.65	/	/	0.74	0.79	0.86	/	1.1	-	85	0.1	50	25.0	50 (100°C)	2.5	4	
1N4531 *	/	/	/	/	/	/	/	/	/	/	/	/	/	75	100	0.025	20	50.0	20	4	4	
1N4532 *	/	/	/	/	/	/	/	/	/	/	/	/	/	75	-	0.1	50	100.0	50	2	2	
1N4533 *	0.49	0.53	0.59	0.62	/	0.70	0.74	/	/	/	/	/	/	40	-	0.05	30	50.0	30	2	2	
1N4534 *	0.49	0.53	0.59	0.62	/	0.70	0.74	/	/	/	/	/	/	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.

Switching Diodes

Diodes

The Case and basic ordering units for Standard and Semi-Standard Products units

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Part Marking

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