

Switching diode

1N4148 / 1N4150 / 1N4448

*This product is available only outside of Japan.

●Application

High-speed switching

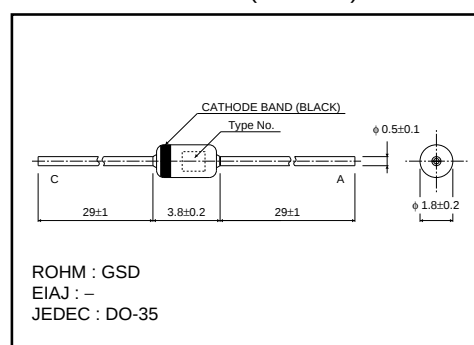
●Features

- 1) Glass sealed envelope. (GSD)
- 2) High speed.
- 3) High reliability.

●Construction

Silicon epitaxial planar

●External dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Type	V _{RM} (V)	V _R (V)	I _{FM} (mA)	I _o (mA)	I _F (mA)	I _{FSM} 1μs (A)	P (mW)	T _j (°C)	Topr (°C)	Tstg (°C)
1N4148	100	75	450	150	200	2	500	200	-65 to +200	-65 to +200
1N4150	50	50	600	200	250	4	500	200	-65 to +200	-65 to +200
1N4448 (1N914B)	100	75	450	150	200	2	500	200	-65 to +200	-65 to +200

●Electrical characteristics (Ta=25°C)

Type	V _F (V)												BV (V) Min.		I _r (μA) Max.				C _r (pF) V _R =0 f=1MHz	t _r (ns) V _R =6V I _F =10mA R _L =100Ω
	@ 0.1mA	@ 0.25mA	@ 1mA	@ 2mA	@ 5mA	@ 10mA	@ 20mA	@ 30mA	@ 50mA	@ 100mA	@ 200mA	@ 250mA	@ 5μA	@ 100μA	@25°C		@150°C			
															V _R (V)	V _R (V)	V _R (V)	V _R (V)		
1N4531						1.0							75	100	0.025 5.0	20 75	50.0	20	4	4
1N4148						1.0							75	100	0.025 5.0	20 75	50.0	20	4	4
1N4150			0.54 0.62			0.66 0.74			0.76 0.86	0.82 0.92	0.87 1.0		—	50	0.1 5.0	50 75	100.0	50	2.5	4
1N4448					0.62 0.72						1.0		—	100	0.025 5.0	20 75	50.0	20	4	4

The upper figure is the minimum V_F and the lower figure is the maximum V_F value.

Diodes

●Electrical characteristic curves (Ta=25°C)

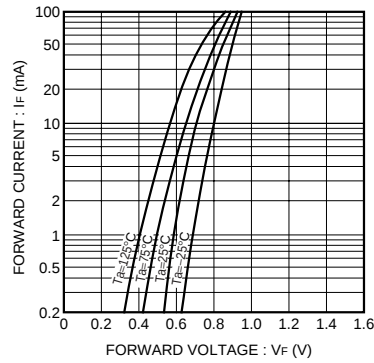


Fig. 1 Forward characteristics

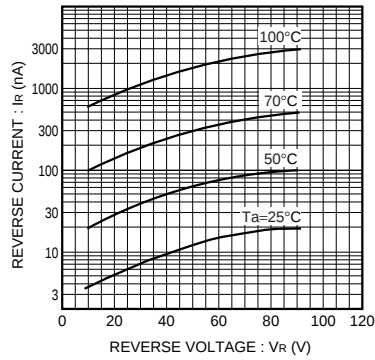


Fig. 2 Reverse characteristics

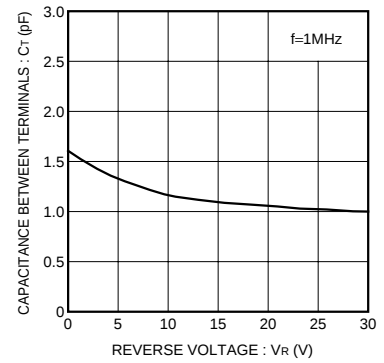


Fig. 3 Capacitance between terminals characteristics

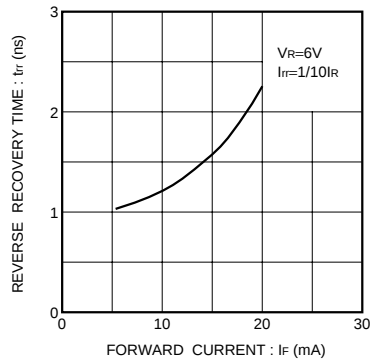


Fig. 4 Reverse recovery time characteristics

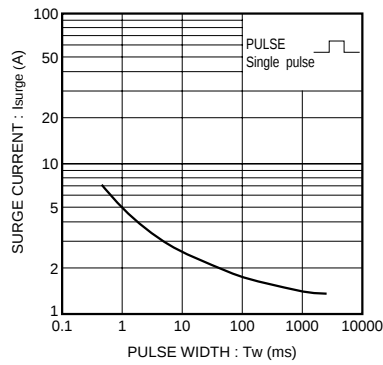


Fig. 5 Surge current characteristics

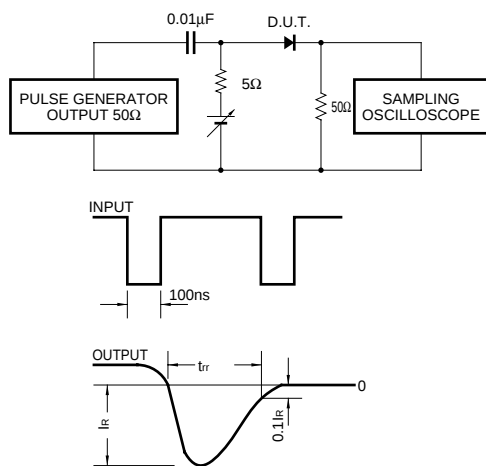


Fig. 6 Reverse recovery time (t_{rr}) measurement circuit

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