

RLS4148 RLS4151 RLS4154 RLS4448 RLS4454 **RLS4149 RLS4152 RLS4446 RLS4449 RLS4606** **RLS4150 RLS4153 RLS4447 RLS4450**

Diode, switching, surface mount

These diodes are suitable for high density surface mounting on printed circuit boards.

Dimensions (Units : mm)

Features

- available in LLDS (LL-34) package
- part marking, two cathode bands, see following table

Applications

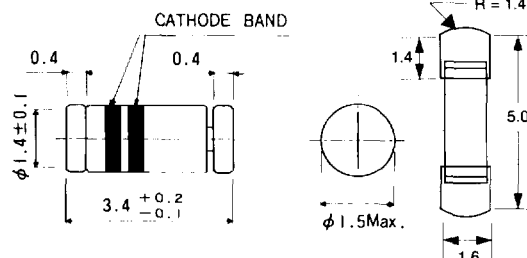
- general rectification

Cathode band colors

Part no.	Color	Part no.	Color	Part no.	Color	Part no.	Color
RLS4148	Black/brown	RLS4152	Black/green	RLS4446	Black/gray	RLS4450	Brown/red
RLS4149	Black/red	RLS4153	Black/blue	RLS4447	Black/white	RLS4454	Brown/orange
RLS4150	Black/orange	RLS4154	Black/purple	RLS4448	Brown/black	RLS4606	Brown/yellow
RLS4151	Black/yellow			RLS4449	Brown/brown		

Absolute maximum ratings ($T_a = 25^\circ\text{C}$)

Part no.	Peak reverse voltage V_{RM} (V)	DC reverse voltage V_R (V)	Peak forward current I_{FM} (mA)	Mean rectifying current I_O (mA)	Forward current I_F (mA)	Peak forward current I_{FSM}^1 (μs) (A)	Power dissipation P (mW)	Contact temperature T_J ($^\circ\text{C}$)	Operating temperature T_{opr} ($^\circ\text{C}$)	Storage temperature T_{stg} ($^\circ\text{C}$)
RLS4148	100	75	450	150	200	2	500	200	-65 ~ +200	-65 ~ +200
RLS4149	100	75	450	150	200	2	500	200	-65 ~ +200	-65 ~ +200
RLS4150	50	50	600	200	250	4	500	200	-65 ~ +200	-65 ~ +200
RLS4151	75	50	450	150	200	2	500	200	-65 ~ +200	-65 ~ +200
RLS4152	40	30	450	150	200	2	500	200	-65 ~ +200	-65 ~ +200
RLS4153	75	50	450	150	200	2	500	200	-65 ~ +200	-65 ~ +200
RLS4154	35	25	450	150	200	2	500	200	-65 ~ +200	-65 ~ +200
RLS4446	100	75	450	150	200	2	500	200	-65 ~ +200	-65 ~ +200
RLS4447	100	75	450	150	200	2	500	200	-65 ~ +200	-65 ~ +200
RLS4448	100	75	450	150	200	2	500	200	-65 ~ +200	-65 ~ +200
RLS4449	100	75	450	150	200	2	500	200	-65 ~ +200	-65 ~ +200
RLS4450	40	30	600	200	250	4	500	200	-65 ~ +200	-65 ~ +200
RLS4454	75	50	450	150	200	2	500	200	-65 ~ +200	-65 ~ +200
RLS4606	85	70	600	200	250	4	500	200	-65 ~ +200	-65 ~ +200



RLS4148-RLS4154, RLS4446-RLS4450, RLS4454, RLS4606
Electrical characteristics (unless otherwise noted, $T_a = 25^\circ\text{C}$)

Part no.	Forward voltage V _F (V)												BV (V) (min)		Reverse current I _R (μA) (max)				Cap bet term C _t (pF) V _R = 0 f = 1 MHz	Rev rec time t _{rr} (ns) V _R = 6 V I _F = 10 mA R _L = 100 Ω
	0.1 mA	0.25 mA	1 mA	2 mA	5 mA	10 mA	20 mA	30 mA	50 mA	100 mA	200 mA	250 mA	5 μA	100 μA	@ 25°C		@ 150°C			
															V _R (V)		V _R (V)			
RLS4148						1.0							75	100	0.025 5.0	20 75	50.0	20	4	4
RLS4149						1.0								100	0.025 5.0	20 75	50.0	20	2	4
RLS4150			0.54 ¹ 0.62			0.66 0.74			0.76 0.86	0.82 0.92	0.87 1.00			50	0.1	50	100	50	2.5	4
RLS4151									1.0				75		0.05	50	50.0	50	2	2
RLS4152	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
RLS4153	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
RLS4154								1.0					35		0.10	25	100	25	4	2
RLS4446							1.0							100	0.025 5.0	20 75	50.0	20	4	4
RLS4447							1.0							100	0.025 5.0	20 75	50.0	20	2	4
RLS4448 ²					0.62 0.72					1.0				100	0.025 5.0	20 75	50.0	20	4	4
RLS4449					0.63 0.73			1.0						100	0.025 5.0	20 75	50.0	20	2	4
RLS4450	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	4
RLS4454						1.0							75		0.1	50	100	50	2	2
RLS4606	0.43 0.55		0.54 0.66			0.65 0.77			0.74 0.86	0.79 0.92	0.86 1.00	1.1	85		0.10 0.25	50 70	25.0	50 100 °C	2.5	4

¹ The upper value for V_F refers to V_F min and the lower to V_F max.

² For RLS44448, I_R @ $V_R = 20 \text{ V}$, $100^\circ\text{C} = 3 \mu\text{A}$ max

Electrical characteristic curves—RLS4148, RLS4446, RLS4447, RLS4448

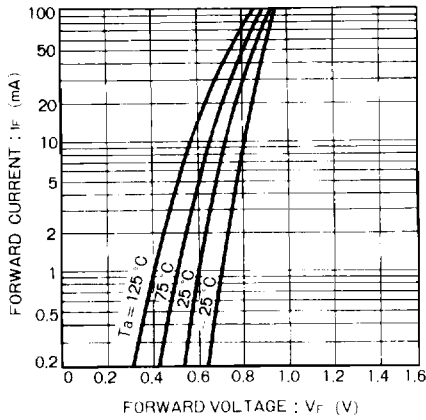


Figure 1

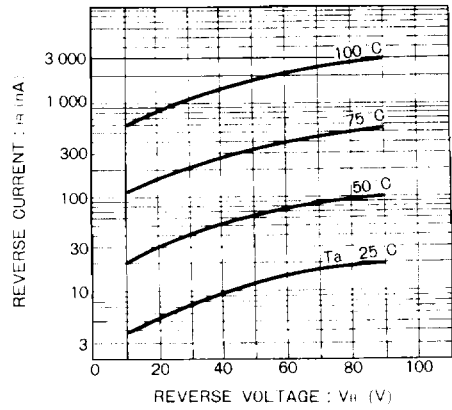


Figure 2

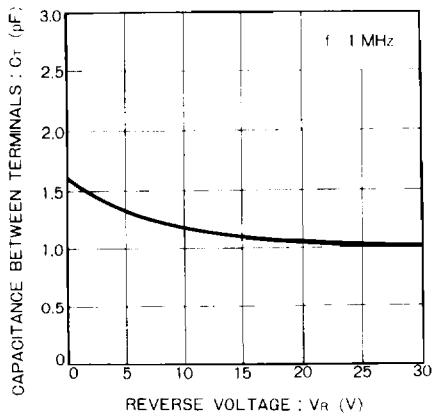


Figure 3

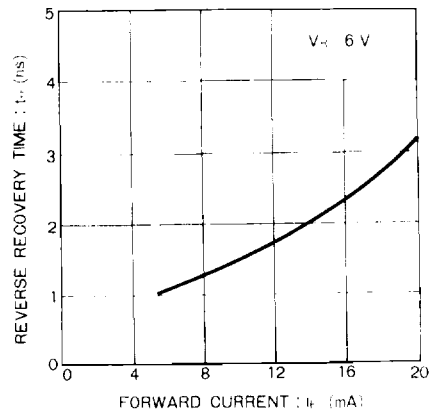


Figure 4

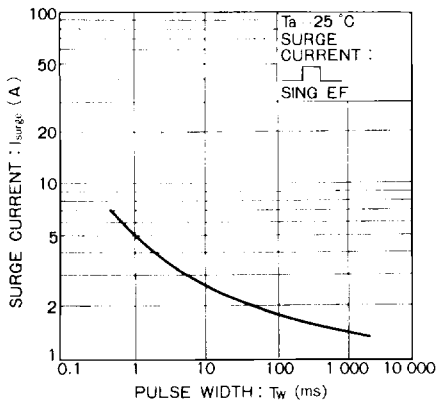


Figure 5

Electrical characteristic curves—RLS4150, RLS4450, RLS4606

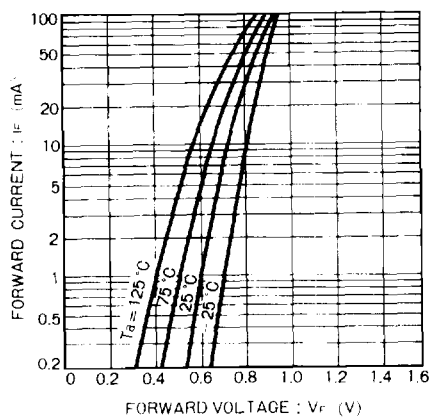


Figure 6

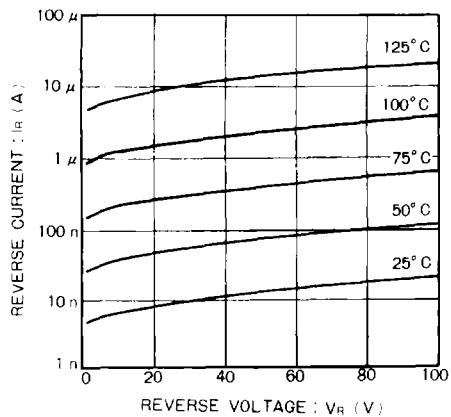


Figure 7

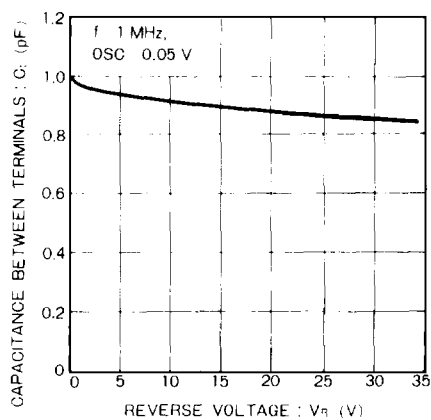


Figure 8

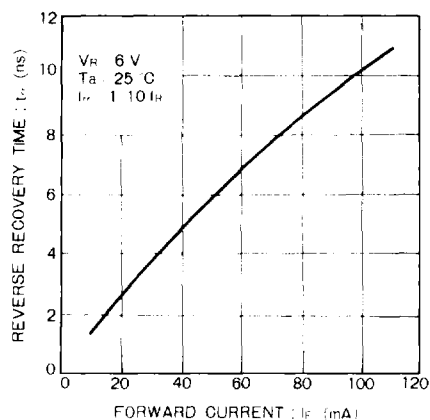


Figure 9

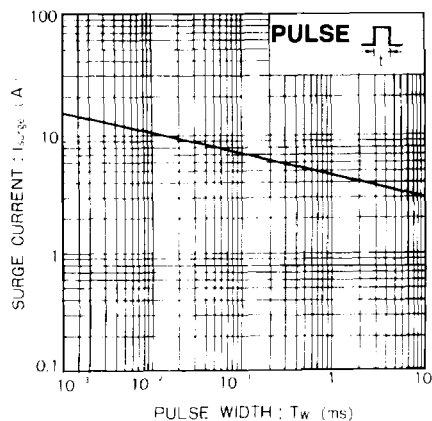


Figure 10

Electrical characteristic curves—RLS4149, RLS4151 - RLS4154, RLS4449, RLS4454

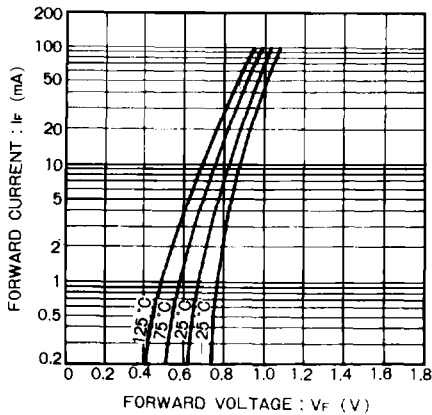


Figure 11

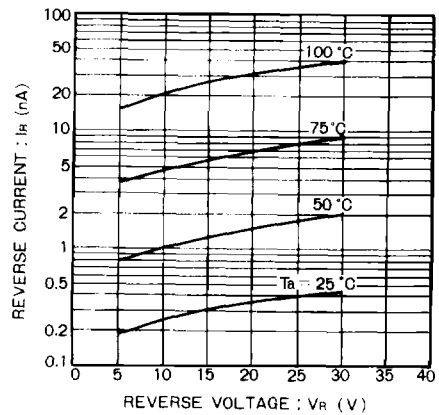


Figure 12

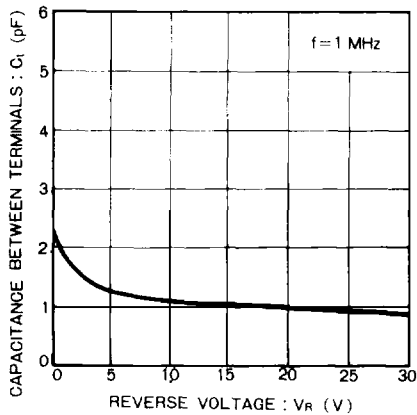


Figure 13

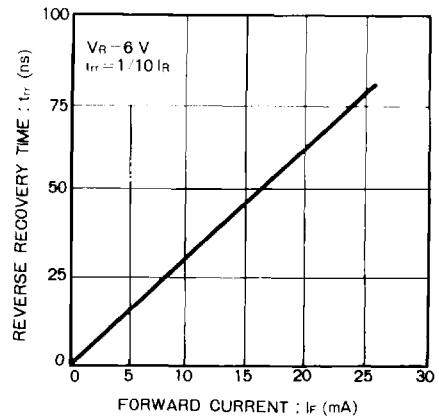


Figure 14

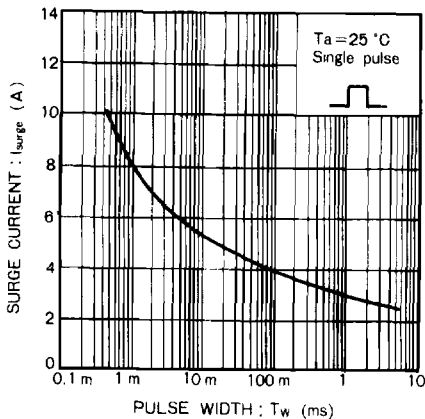


Figure 15

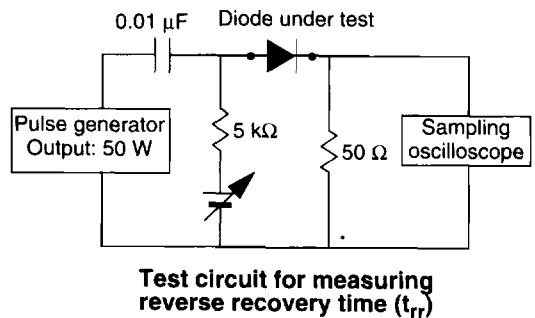


Figure 16