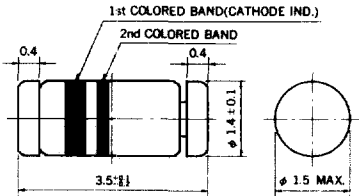


SILICON SWITCHING DIODES LS953, LS954, LS955

HIGH SPEED SWITCHING EPITAXIAL DIODES Leadless Type

PACKAGE DIMENSIONS in millimeters



	1st	2nd
LS953	Green	Black
LS954	Green	Yellow
LS955	Green	Green

DESCRIPTION

The LS953, LS954 and LS955 are silicon epitaxial planar diodes designed for high speed switching applications.

FEATURES

- Miniature Package.
- High Power Dissipation.
- Low Capacitance.
- Fast Recovery Time.
- Low Leakage.
- High Conductance.

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

Junction Temperature T_j 175 °C

Storage Temperature T_{stg} -65 to +175 °C

Maximum Power Dissipation ($T_a = 25$ °C)

Power Dissipation P_T^* 500 mW

Maximum Voltages and Currents ($T_a = 25$ °C)

		LS953	LS954	LS955	
Peak Reverse Voltage	V_{RM}	35	75	100	V
Reverse Voltage	V_R	30	50	75	V
Peak Forward Surge Current (1 μ s)	$I_{F(surge)}$	2 000	4 000	4 000	mA
Peak Forward Current	I_{FM}	300	600	600	mA
Average Rectified Current	I_O	100	200	200	mA

* With 0.9 cm² x 0.7 mm Ceramic Substrate

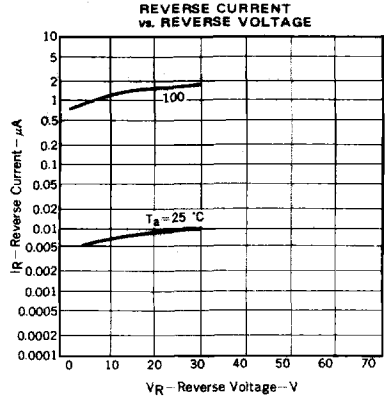
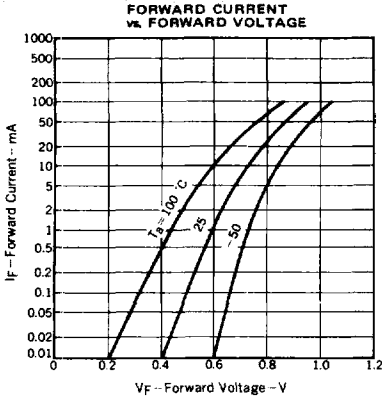
ELECTRICAL CHARACTERISTICS ($T_a = 25$ °C)

CHARACTERISTIC	SYMBOL	LS953			LS954			LS955			UNIT	TEST CONDITIONS
		MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.		
Forward Voltage	V_F		0.8	1.0							V	$I_F = 30$ mA
Forward Voltage	V_F					0.9	1.0				V	$I_F = 100$ mA
Forward Voltage	V_F							0.9	1.0		V	$I_F = 150$ mA
Reverse Current	I_R		0.01	0.1							μ A	$V_R = 30$ V
Reverse Current	I_R					0.015	0.1				μ A	$V_R = 50$ V
Reverse Current	I_R							0.03	0.1		μ A	$V_R = 75$ V
Terminal Capacitance	C_t		2.0	4.0		2.0	3.5	2.0	3.0		pF	$V_R = 0, f = 1.0$ MHz
Reverse Recovery Time	t_{rr}		2.0	3.0		2.0	3.0	2.0	3.0		ns	$I_F = 10$ mA, $V_R = 6.0$ V, $R_L = 100$ Ω

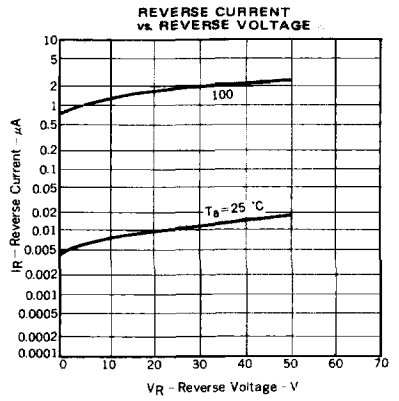
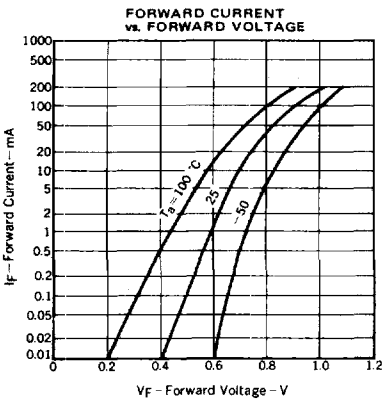
LS953, LS954, LS955

TYPICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

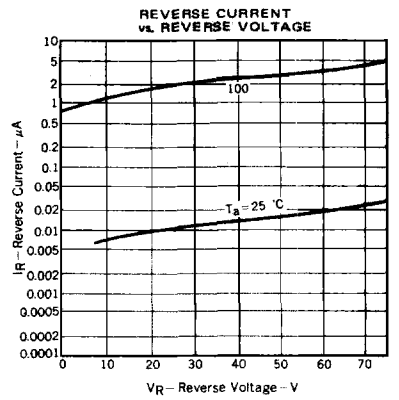
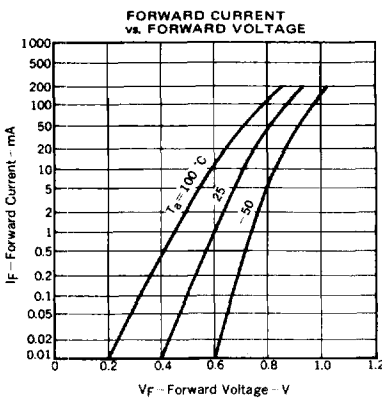
LS953

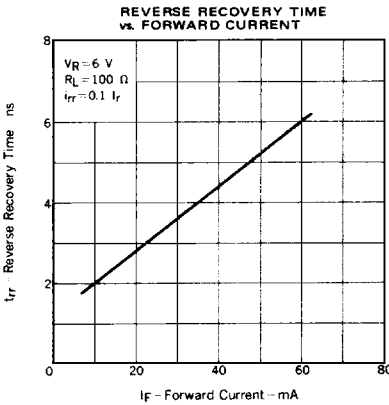
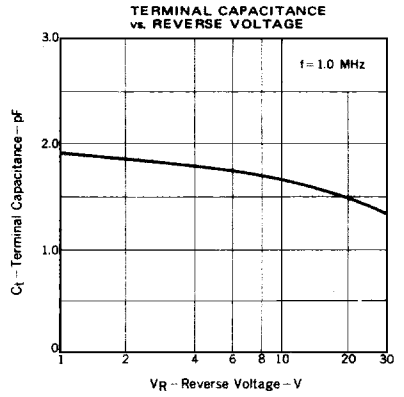
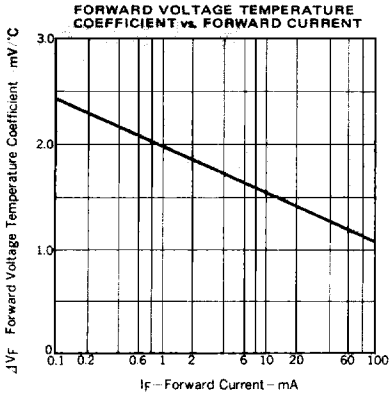


LS954

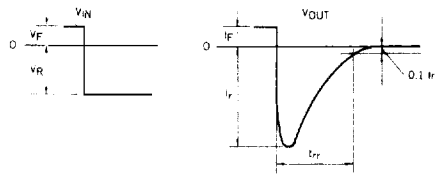
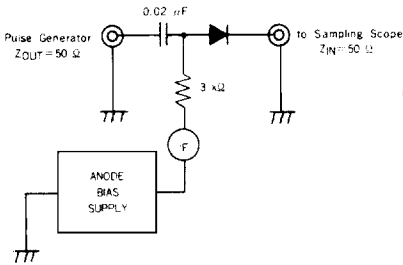


LS955





t_{rr} REVERSE RECOVERY TIME TEST CIRCUIT



Test Conditions : $I_F = 10 \text{ mA}$, $V_R = 6.0 \text{ V}$, $R_L = 100 \Omega$