

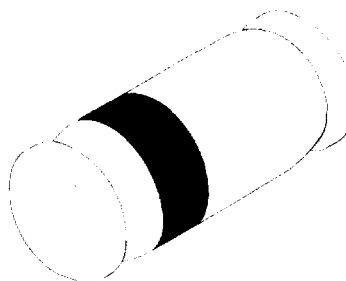
Silicon Epitaxial Planar Diodes

Features

- Electrical data identical with the device 1N4154

Applications

Extreme fast switches



94 9371

Absolute Maximum Ratings

$T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage			V_{RRM}	35	V
Reverse voltage			V_R	25	V
Peak forward surge current	$t_p = 1\mu\text{s}$		I_{FSM}	2	A
Repetitive peak forward current			I_{FRM}	450	mA
Forward current			I_F	200	mA
Average forward current	$V_R = 0$		I_{FAV}	150	mA
Power dissipation			P_V	500	mW
Junction temperature			T_j	175	$^\circ\text{C}$
Storage temperature range			T_{stg}	-65...+175	$^\circ\text{C}$

Maximum Thermal Resistance

$T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	on PC board 50mmx50mmx1.6mm	R_{thJA}	500	K/W

Characteristics

T_j = 25 °C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I _F =30mA		V _F			1	V
Reverse current	V _R =25V		I _R			100	nA
	V _R =25V, T _j =150 °C		I _R			100	μA
Breakdown voltage	I _R =5μA, t _p /T=0.01, t _p =0.3ms		V _(BR)	35			V
Diode capacitance	V _R =0, f=1MHz, V _{HI} =50mV		C _D			4	pF
Reverse recovery time	I _F =I _R =10mA, i _R =1mA		t _{rr}			4	ns
	I _F =10mA, V _R =6V, i _R =0.1xI _R , R _L =100Ω		t _{rr}			2	ns

Typical Characteristics (T_j = 25 °C unless otherwise specified)

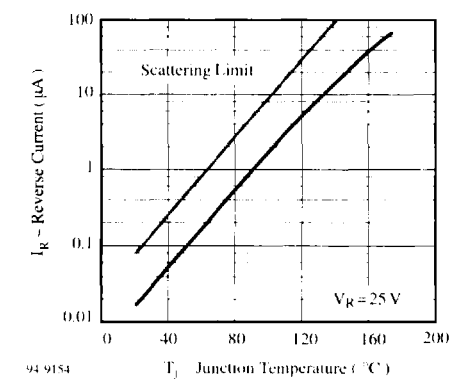


Figure 1 : Reverse Current vs. Junction Temperature

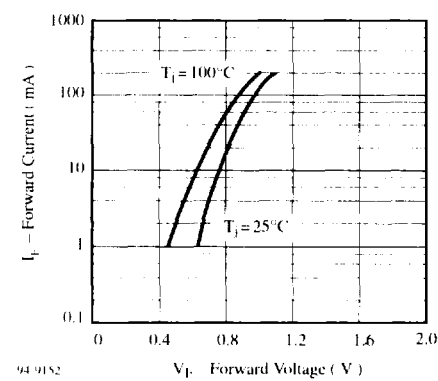


Figure 2 : Forward Current vs. Forward Voltage

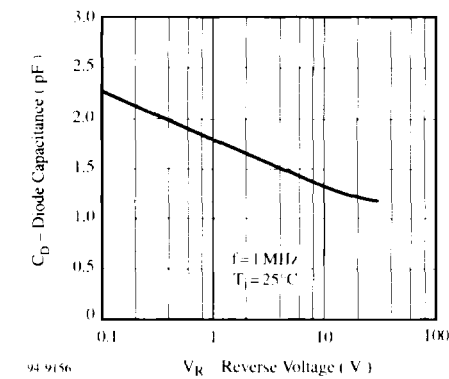


Figure 3 : Diode Capacitance vs. Reverse Voltage

Dimensions in mm

